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A QUALITATIVE ANALYSIS OF THE ALBERTA LEARNING REMOVING BARRIERS TO HIGH SCHOOL COMPLETION REPORT

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This document is intended primarily for:
System and school administrators
Teachers and support staff
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At risk students
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And may be of interest to:
Individuals interested in school improvement and improving high school completion rates

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TABLE OF CONTENTS

ORGANIZATION OF THE STUDY 1

INTRODUCTION TO THE STUDY 2
Purpose of the Study 2
Justification for Early School Leaving Research 2
Costs and Consequences of Early School Leaving 3
Deviance and the Early School Leaver 4
Significance of the Two Studies 4
Practical Considerations 5
Theoretical Considerations 5
Definitions of Terms 6

REVIEW OF THE LITERATURE 6
Family Background and Demographic Characteristics 6
Personal Characteristics 13
School-Related Characteristics 15
Conceptual Framework of the Factors Affecting Early School Leaving 20
Summary 22

COMPARISON AND CONTRAST OF STUDIES 23
Social Climate: Listening to and Supporting Students 23
Attitudinal Factors Toward the High School Environment 24
Environmental Stability: Transition and Mobility 26
Child Abuse 27
Family Influences 27
Neighbourhood and Community 28
Individual Characteristics 29
Companions 30
Number of Schools Attended and Suspensions 31
Cognitive Ability 32
School Behaviour Problems 34
Employment, Finances, High School Credits, and Future Plan 34

RECOMMENDATION 36
Recommendations for Practice 36
Recommendations for Further Research 38

REFERENCES 39

APPENDIX A: Factors Affecting Early School Leaving 67

LIST OF FIGURES

Conceptual Framework of the Factors Affecting Early School Leaving 21

ORGANIZATION OF THE STUDY

The study is organized into four sections. The first section presents an overview of early school leaving within a Canadian context and consists of (a) the purpose of the study, (b) the justification for early school leaving research, (c) costs and consequences of early school leaving, (d) deviance and the early school leaver, (d) the significance of the two studies, and (e) definitions of terms.

The second section presents a review of the literature examining family background, personal, school, and criminal characteristics related to early school leaving. Literature from both school-related and non-school-related studies is presented and mirrors that of the *Barriers Report* (2001). The section closes with a summary.

The third section of the paper identifies and discusses differences and common themes of the two studies. To provide a framework for the comparison and contrast of the two studies, twelve key issue are addressed: (a) social climate: listening to and supporting students; (b) attitudinal factors towards the school environment; (c) environmental stability: transition and mobility; (d) child abuse; (e) family influences; (f) neighbourhood and community; (g) individual characteristics; (h) companions; (i) number of schools attended and suspensions; (j) cognitive ability; (k) school behaviour problems; and (l) employment, finances, high school credits, and future plans. The discussion includes literature from other relevant theoretical and empirical studies, some of which have been cited in the review of literature. When practical, the findings of the present study are compared with data from national studies.

Recommendations of the report are presented in the fourth section. The recommendations, organized into two parts, are a synthesis based on the findings and conclusions of the *Removing Barriers to High School Completion--Final Report* (2001), the *Early School Leaving: A Young Offender Perspective* (2001) study, the research literature, and the researcher's experience. The report closes with the references cited.

INTRODUCTION TO THE STUDY

Purpose of the Study

The purpose of this document is to compare and contrast the *Removing Barriers to High School Completion--Final Report* (2001) with the qualitative study entitled *Early School Leaving: A Young Offender Perspective* (2001). The qualitative study is about 12 male school dropouts who "ended up behind bars." The perceptions of these teenage offenders (all between 16 and 18 years of age) were explored to address the phenomenon of early school leaving. This qualitative study was guided by the research question "Why did these incarcerated youths leave school early?" The design of the study lies within the qualitative spectrum; data were gathered and analyzed from semi-structured, open-ended interviews conducted with purposively selected *in situ* participants, that is, participants incarcerated in a secure-custody detention facility. Kvale (1996) provided the rationale for the method, suggesting, "If you want to know how people understand their world and their life, why not talk with them?" (p. 1).

In contrast, the *Barriers Report* (2001) was supported by the input of 22 advisory groups, involving over 210 students, parents, teachers, school and central office administrators and community members throughout Alberta. The *Barriers Report* (2001) was designed to include specific sub-groups including members of the Aboriginal community, school jurisdiction staff and clients, students involved with the criminal justice system and their parents, adult learners who had previously left school early and were taking academic upgrading; and staff at post-secondary institutions specializing in academic upgrading. Further, the research questions guiding the *Barriers Report* (2001) were

1. In your experience, is early school leaving a problem?
2. What is being done currently in your community to help students complete high school on time (by 19 years of age) or as adults?
3. What else can be done and by whom to help students complete high school on time (by 19 years of age) or as adults?
4. Do you have any other comments or suggestions for improving high school completion rates?

Justification for Early School Leaving Research

Since the 1930s, the overall proportion of early school leavers has declined considerably in Canada (Guppy & Davies, 1998). Despite this pattern of decline, however, dropout rates remain high in relation to those in other developed countries (e.g., Colombo, 1998; Gilbert, Barr, Clark, Blue, & Sunter, 1993; Lafleur, 1992; Oderkirk, 1993). Concerns over the dropout rate have been escalating in Canada and were featured in the Statistics Canada School Leavers Survey (SLS, 1991) and the School Leavers Follow-up Survey (SLF, 1995), commissioned to measure the extent of the dropout problem and to report on factors associated with early school leaving. The findings of these studies and others (e.g., Alberta Advanced Education Career & Development, 1993; Durksen, 1994; Edmonton Public Schools, 1996) estimated that 15% to 18% of young Canadians drop out of school annually. Earlier research (e.g., Denton & Hunter, 1991; Employment and Immigration, 1990a, 1990b; Jansen & Haddad, 1994; Radwanski, 1987; Statistics Canada, 1990; The Canadian Press, 1991) suggested that much higher dropout rates exist. These sometimes dramatic figures have attracted much media attention and public discourse.

It is generally assumed that young people disadvantage themselves by dropping out of school. Although this statement has received strong research support, many relatively young individuals still decide to postpone or end their formal schooling (Light, 1995). Using estimates derived from a large national representative stratified random sample of 6,284 youths, the SLF (1995) study concluded that in 1995, roughly 160,000 Canadians aged 22 to 24 had left high school without a Grade 12 diploma (Frank, 1996a). This astounding statistic highlights the severity of the problem in Canada and demonstrates that concern about early school leaving is warranted. Irrespective of which dropout statistics are accurate, many students still leave school early, resulting in a squandering of human talent and potential in Canada.

Costs and Consequences of Early School Leaving

At least three harmful effects result when students leave school early. First, dropouts face an increased probability of reduced economic and employment-related prospects. This increase usually translates into a bleak future of minimum wages and part-time jobs or unemployment. Many researchers have studied this effect (e.g., Frank, 1996b; Gilbert, 1993; Peng, 1985; Rumberger, 1987; Sullivan, 1988; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1990; Weis, Farrar & Petrie, 1989). According to Neufeld and Stevens (1991) and Spain and Sharp (1990), the unemployment rate for dropouts will increase as occupations attracting dropouts are eventually eliminated by technological change. Employment and Immigration Canada (1990b) supported this view, projecting that by the next decade, approximately two-thirds of all jobs would demand at least 12 years of formal education and that the "new jobs [would] demand more than 17 years of education and training" (p. 7).

Second, students who leave school early can create enormous social and economic costs for society. Social problems related to school attrition may include higher rates of delinquency, criminal activity, drug abuse, incarceration, and other social pathologies (e.g., Educational Testing Service, 1995; Fagan & Pabon, 1990; Fagan, Piper, & Moore, 1986; Gilbert et al., 1993; Sum & Fogg, 1996; Wolfgang, Thornberry, & Figlio, 1987). The economic costs of the dropout problem may include reliance on social programs such as employment insurance, welfare, and mothers' allowance. Supporting this position, the Educational Testing Service reported in 1995 that approximately 50% of welfare families in the United States were headed by early school leavers. Other economic costs of the dropout problem may be incurred by lost earnings or unrealized taxes (e.g., Catterall, 1988; Gilbert, 1993, 1994; Lafleur, 1992).

Third, the individual costs of leaving school early are immeasurable. Failure to achieve a high school diploma or its equivalent may severely limit an individual's chances of success during adulthood. Students who leave school before obtaining their high school diplomas often struggle both financially and emotionally because of reduced employment prospects, delinquency, drug abuse, low self-esteem, and low achievement. The problem of early school leaving is, therefore, both a collective and individual concern. Leaving school early often leads to frustration and unhappiness, accompanied by an unacceptable loss of human potential. Research confirms that dropouts are less likely than graduates to be employed (e.g., Gilbert, 1993; Peng, 1985; Winters & Kickbush, 1996). Montigny and Jones (1990) claimed that many unemployed and illiterate young people would experience marginalization and be unable to participate fully in society. Raymond (1992) contended that this sector of the population would be sentenced to a life of long-term unemployment, often

leading to stress, anxiety, and low self-esteem. According to Neufeld and Stevens (1991), low self-esteem is a psychological problem for many early school leavers. The result of low self-esteem is, in these researchers' opinion, recorded statistically in higher rates of welfare, drug abuse, suicide, criminal activity, and deviance.

Deviance and the Early School Leaver

As noted above, one of the 22 focus groups involved in the *Barriers Report* (2001) included students involved with the criminal justice system. Judge Zuker (1997) emphasized the importance in Canada of deviance in the dropout equation, pointing out that "failure at school and truancy are early and clear indicators of young persons who are at very high risk of committing offences in our communities" (p. 47). Many researchers have agreed that among particular high-risk groups, especially young males, dropping out of school is associated with disciplinary problems or delinquent activity (e.g., Ekstrom, Goertz, Pollack, & Rock, 1986; Fagan et al., 1986; Hartnagel & Krahn, 1989; Janosz, Leblanc, Boulerice, & Tremblay, 1997; Jarjoura, 1993; Loeber & Farrington, 1998; Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990; Thornberry, Moore, & Christenson, 1985). The SLS (1991) study supported these findings, concluding that high school dropouts were more likely than high school graduates to have engaged in deviant behaviour. The same study also concluded that, compared to high school graduates, early school leavers had four times as many criminal convictions and were more likely to engage in substance abuse.

Both delinquency and early school leaving may have many complex causes. Earlier research by West (1984) suggested that socioeconomic status may be a factor in a student's decision to drop out of school. West maintained that working-class adolescents were arrested more often and jailed more frequently than other youths. Similarly, other research suggested that early school leavers had the highest rate of juvenile delinquency (e.g., Bell-Rowbotham & Boydell, 1972; Gilbert et al., 1993). In addition, Haberman and Quinn (1986) claimed that only 1.6% of students who had been incarcerated ever obtained their secondary school diploma. Supporting this position, Cato (1988) pointed out that approximately 70% of Canadian prison inmates had acquired no more than eight years of formal education. Several other research-based studies have also reported similar findings (e.g., Nuttall, 1988; Service correctionnel du Canada, 1992, cited in National Crime Prevention Council (NCPC), 1996). These findings suggested a connection between early school leaving, deviance, and structural factors such as socioeconomic status, parental education, and family composition. Despite this connection, few researchers have explored the problem of early school leaving from the perspective of a young criminal offender; consequently, the *Barriers Report* (2001) and the *Early School Leaving Study* (2001) both sought to address this gap.

Significance of the Two Studies

Wiersma (2000) advised that a research study should "add to existing knowledge or contribute to the educational process in a meaningful way" (p. 29). In particular, he remarked that the research should be significant from "either a practical or a theoretical viewpoint" (p. 31). Consistent with Wiersma's observation, the two studies outlined previously have both practical and theoretical significance.

Practical Considerations

Understanding the practical reasons for early school leaving is desirable given the present interest by parents, teachers, administrators, school boards, ministries of education, and the public in general. Identifying and understanding early school leaving based both on a self-report emic and an advisory group perspective may provide a greater understanding of students' educational needs. As well, understanding reasons for early school leaving can also help to improve teaching and administrative practice. The themes and patterns emerging from both studies may help teachers and administrators in deciding which courses of action to follow to develop more comprehensive student retention programs. While the purpose of these two studies is not to develop a particular educational program for early school leavers, the byproducts of the research may include the improvement of existing programs. As Wiersma (2000) explained, "Research in and of itself may not generate a curriculum or program--these would likely have to be developed after the research is completed--but the research provides the basis for such development" (p. 388).

Theoretical Considerations

Gaps in the literature on early school leaving can be grouped into three general areas. First, although much research has been done within the positivist domain, little research has been conducted from a naturalistic perspective, and considerably less from a comparison and contrast perspective. Analyzing these aspects from a new angle will supply researchers with information about a topic that has received limited scholarly attention. This contribution will supplement the existing literature and clarify the relationship between a qualitative and quantitative perspective.

Second, the literature has suggested that early school leaving should be analyzed from several perspectives and positions using dissimilar populations. For example, Foster, Tilleczek, Hein, and Lewko (1994) emphasized the importance of doing so when they remarked that "In considering the problem of the high school dropout, the literature on the 'marginal students' or 'students at-risk' of dropping out must also be examined" (p. 74). However, very little research based on the emic perspective has addressed the issue of early school leaving. Although much research has been done on why young students leave school early, sampling designs have been limited to a subset of the population predominantly unconstrained by its environment, despite the high degree of congruency between incarceration and dropout status. Both studies tried to redress several shortcomings of earlier studies by drawing on information from the students themselves. By talking to early school leavers, the researcher(s) in both studies revealed the nature and extent of early school leaving from a youth perspective.

Overall, insufficient research has been commissioned to address the young offender dropout population in Canada, although roughly 5,000 youths are held in custodial care each day (Fine, 1995, Hung & Lipinski, 1995). Two national school-leaving surveys (SLF, 1995; SLS, 1993) and one national longitudinal survey of children and youth (NLSCY, 1996) illustrated this point more concretely: all three surveys excluded from their analyses those residents living in prison or secure-custody facilities. Systematically excluding students involved with legal problems from early-school-leaving studies provides an incomplete picture of the problem. Accordingly, both studies addressed this omission by focusing on students involved with the criminal justice system and/or their parents.

By examining this group of individuals at least four outcomes should emerge from the research. First, both studies will contribute to knowledge in educational research by providing a finer understanding of the dropout problem. Second, the findings will provide an increased practical and conceptual understanding of the dropout phenomenon. Third, results from these studies will be useful for the development of educational policy and practice. Finally, these studies will precipitate questions for further research on the dropout-young criminal association.

Definitions of Terms

Definitions of conceptual terms are crucial to understanding any field of investigation or inquiry. As Neuman (1997) observed, "A good definition has one clear, explicit, and specific meaning. There is no ambiguity or vagueness" (p. 134). To provide clarity and uniformity, the following definitions of terms were employed in the present study.

At-risk Student: A student more apt than other students to drop out of school before graduation.
Barriers Report: Short for the *"Removing Barriers To High School Completion--Final report* (2001)."
Early School Leaver: "Any student who terminates his or her schooling prior to completing a recognized high school program or who does not directly continue their formal education in a post-secondary environment (*Removing Barriers To High School Completion--Final report*, 2001). In this report "dropout" will be used synonymously for this term.
Early School Leaving Report: Short for the "*Early school leaving: A young offender perspective study* (2001)."
Young Offender: "A person who is or, in the absence of evidence to the contrary, appears to be twelve years of age or more, but under eighteen years of age and, where the context requires, includes any person who is charged under this Act with having committed an offence while he was a young person or is found guilty of an offence under this Act" (YOA, R.S.C. 1985, s. Y-1, 2[1]).

REVIEW OF THE LITERATURE

This section briefly reviews the existing theoretical and empirical literature on early school leaving and combines data from both school-related and non-school-related studies. The review is organized into three sections and mirrors that of the *Barriers Report* (2001). The first section deals with studies examining the impact of family background and demographic influences on early school leaving. The second section deals with literature examining diverse student-related variables. The final section discusses studies examining the school-related causes of premature school leaving.

Family Background and Demographic Characteristics

The family background and demographic characteristics contributing to students quitting school have been extensively studied and are well documented in the research literature. It has long been recognised that youths from low socioeconomic backgrounds are more likely than their more affluent peers to suffer from a wide range of problems including academic deficiencies. Connell (1994) emphasized the importance of socioeconomic status (SES) within the school context when he remarked that "children from poor families are, generally speaking, the least successful by conventional measures and the hardest to teach by traditional methods" (p. 125). The literature also showed that children who have experienced persistent or occasional poverty were far more likely to have low intelligence-quotient (IQ) test scores (e.g., Duncan, Brooks-Gunn, & Klebanov, 1994;

Masten et al., 1997; Peng & Lee, 1993). Low IQ has been highly correlated with the propensity to quit school (e.g., Herrnstein & Murray, 1994; Wilson & Herrnstein, 1985).

Additionally, the literature suggested that individuals from low SES backgrounds were more inclined than high SES children to have early-onset conduct or behaviour problems. For example, Offord and Lipman's (1996) study, using data from the 1996 National Longitudinal Survey of Children and Youth (NLSCY), showed that children from low SES backgrounds were more likely than other children to be physically aggressive and to have emotional and behavioral problems. Fagan and Wexler (1987) suggested that "a complex set of influences" particularly low SES, may be responsible for aggressive behaviours in youth (p. 644). Consistent with these findings, several other studies have also reported similar results (e.g., Dodge, Pettit, & Bates, 1994; Duncan et al., 1994; Loeber, Green, Keenan, & Lahey, 1995; Patterson, Reid, & Dishion, 1992; Peng & Lee, 1993).

Studies showed that low SES is highly correlated with the propensity to leave school early. Drawing on data from a Statistics Canada survey of consumer finances, Ross, Scott, and Kelly (1996a) reported that twice as many poor teenagers living in poverty dropped out of high school as compared to non-poor teenagers. Supporting this position, Hahn (1987) found that economically disadvantaged or underprivileged youth were three times more likely to be early school leavers. Moreover, a longstanding body of literature has consistently cited the relationship between low SES and early school leaving (e.g., Alexander, Entwisle, & Horsey, 1997; Anisef & Johnson, 1993; Dornbusch, Ritter, & Steinberg, 1991; Garner & Raudenbush, 1991; Gilbert et al., 1993; Rumberger, 1995). This large body of research leaves little doubt that low SES may alter a student's educational prospects and reduce future career opportunities.

The fixed compositional attribute of ethnic status and how it affects early school withdrawal also needs to be considered. Although the proportion of early school leavers has declined over the past few decades as a whole, a widespread gap in the rate of decline still exists between ethnic groups and the general population (e.g., Anderson, 1993; Loughrey & Harris, 1990; Rumberger, 1987, 1995; Sum & Fogg, 1996). The North American literature suggested that ethnic minority groups, particularly students of Hispanic descent (e.g., Chicanos, Cubans, and Puerto Ricans), were more inclined than the general population to have higher dropout rates (e.g., Bean & Tienda, 1990; Ensminger & Slusarcik, 1992; McMillen, Kaufman, Hausken, & Bradby, 1993; Schwartz, 1995; U.S. Department of Education, 1992, 1993). Several scholars, including Rumberger (1987, 1995) and Steinberg, Blinde, and Chan (1984), reported that students from non-English speaking families were also at higher risk than other students for school failure. Correspondingly, young people from families who had immigrated to the United States were more likely than other students to drop out of school (e.g., Levin, 1989; Velez, 1989). As well, research findings showed that schools with high concentrations of ethnic minority groups had significantly higher dropout rates than other schools (e.g., Fine, 1991; McNeal, 1997; Wehlage & Rutter, 1986). However, few differences between ethnic groups exist once structural characteristics such as SES are accounted for (e.g., Alexander et al., 1997; Frank, 1990; Kaufman & Bradby, 1992; McMillen et al., 1993; Rumberger, 1995).

Ethnic status also affects early school leaving in Canada. The literature indicated that a disproportionate number of Canadian students with ethnic ancestry are dropping out of mainstream secondary schools. Leaving the formal educational system is still the major obstacle to financial success for many Aboriginal (First Nations, Inuit and Métis) people in Canada. For instance,

Jewison (1995) reported that approximately 76% of students residing in the North West Territories had dropped out of school before having received their secondary school diploma. Likewise, Employment and Immigration Canada (1990b), noted that "Dropout rates are particularly high among native youth (as high as 70 per cent in some areas)" (p. 10). This is an astounding statistic, suggesting a severe problem within this section of the population. Several other Canadian studies have reported similar findings (e.g., Anisef & Johnson, 1993; Brady, 1996; Galt, 2000; Gilbert et al., 1993; Hollander & Bush, 1996).

Coupled with SES and ethnic factors, neighbourhood and community characteristics have also been linked to early school leaving. Researchers have devoted considerable attention in recent years to identifying the distal influences by which neighbourhood and community characteristics affect individual development, deviance, and early school leaving. In general, a setting's characteristics were reported to strongly influence youth because they may be "less independent and less in control of their lives" than adults (Ingram, 1993, p. 195). Urban settings, in particular, were reported to be positively associated with delinquency. For instance, in the data from the Youth in Transition studies conducted by the Institute for Social Research at the University of Michigan, Ingram (1993) found compelling evidence suggesting that the urban environment was a very potent predictor of delinquency. Several other scholars reported that youths from high crime, socially disorganized, and poor urban neighbourhoods were more likely than other youths to drop out of school (e.g., Fagan & Pabon, 1990; Fine, 1986; McDill, Natriello, & Pallas, 1986). Likewise, student achievement may also be geographically circumscribed. For example, the *Edmonton Journal* reported that students attending schools in Edmonton's wealthier neighbourhoods scored the highest on provincial achievement tests (Barrett, 1997). Furthermore, Kohen's (1999) study relying on the NLSCY (1996) data set reported that even prior to formal education, neighbourhoods influence a child's development. Several other studies have replicated these findings, showing that schooling outcomes may be associated with the character of a neighbourhood (e.g., Dornbusch et al., 1991; Garner & Raudenbush, 1991; Vartanian & Gleason, 1999; Willms, 1996; Willms & Kerckhoff, 1995).

The weight of the evidence cited in the empirical literature clearly demonstrated that children from poor urban neighbourhoods, as indexed most often by low-income census tracts, may be at higher risk for school failure (e.g., Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Connell, Halpern-Felsher, Clifford, Crichlow, & Usinger, 1995; Ensminger, Lamkin, & Jacobson, 1996; Figueira-McDonough, 1993; Radwanski, 1987), juvenile crime (e.g., Elliott et al., 1996; Farrington et al., 1990; Lindström, 1996; Loeber & Farrington, 1998; Matsueda & Heimer, 1987; McDill et al., 1986; Sampson, 1987; Saner & Ellickson, 1996), and social assistance (e.g., Fetler, 1989; Gilbert et al., 1993). Other studies suggested a link between social assistance and early school leaving. For example, an older study analyzing Canadian data asserted that approximately 74% of those receiving social assistance in Saskatchewan had not graduated from high school (*Star Phoenix*, cited in Radwanski, 1987). These results are similar to a finding by the Educational Testing Service (1995), which reported that roughly 50% of welfare families in the United States were headed by early school leavers. Other scholars (e.g., Haveman, Wolfe, & Spaulding, 1991; Gilbert, 1993; Rumberger, 1987; Stern, 1987; Winters & Kickbush, 1996) supported these findings, noting that dropouts were much more inclined than those who stayed in school to become dependent on welfare and other forms of public assistance. These studies clearly demonstrated the significant economic impact of early school leaving.

Studies found that youths from neighbourhoods composed of a high percentage of adult dropouts were more likely than other youths to disengage from the school environment (e.g., Brennan & Anderson, 1990). Likewise, studies have shown that students from neighbourhoods with a high percentage of single-parent families may be more inclined than other students to experience "social isolation" (Wilson, 1987, cited in Kohen, 1999) and to leave school early (e.g., Brennan & Anderson, 1990; Figueira-McDonough, 1993; Fitzpatrick & Yoels, 1992). Other community-related factors suggested ethnic (e.g., Brennan & Anderson, 1990; Figueira-McDonough, 1993; Fitzpatrick & Yoels, 1992) and blue-collar neighbourhoods (e.g., Ensminger et al., 1996), and neighbourhoods with high unemployment rates (e.g., Bickel & Papagiannis, 1988; Elliott et al., 1996; Figueira-McDonough, 1993) as correlates of, or predictors to, early school leaving. These studies leave little doubt that neighbourhood, community, and other sociocultural characteristics influence a student's educational and employment prospects.

Since the early 1980s, the proportion of single-parent families in Canada has increased precipitously, perhaps by as much as 60% (e.g., Ross, Roberts, & Scott, 1998a, 1998b). Previously, Canadian demographic data indicated that lone-parent status typically resulted from the death of a parent. Today, the major cause of lone-parent status is divorce, separation, and dissolution of a common-law relationship (e.g., Ross et al., 1998a). By any measure, children and youth from single-parent families face considerably more developmental problems compared to those faced by children from two-parent families. Carrying this notion one step further, other studies have shown that children living in single-parent families were more likely than other children to have physical and mental health problems (e.g., Dooley & Lipman, 1996, cited in Lefebvre & Merrigan, 1998; Judge & Benzeval, 1993). For instance, Lipman, Offord, and Dooley (1996), using data collected from the National Longitudinal Survey of Children and Youth, found that youngsters from lone-parent families, irrespective of income level, had significantly more mental health and emotional problems.

The literature has also identified family structure as an important variable in the dropout process. For example, in reviewing the literature, Radwanski (1987) noted that "family structure appears to have a considerable effect not only on the decision to drop out, but also on prior academic performance" (p. 75). Similarly, McLanahan and Sandefur (1994) reported that youths from lone-parent families had twice the chance of dropping out of school compared to their counterparts in two-parent families. An array of other studies supported the notion that early school leavers were much more prone than school stayers to come from single-parent families (e.g., Anisef & Johnson, 1993; Gilbert et al., 1993; Lipman et al., 1996; McNeal, 1995; Rumberger, 1995; Sandefur, McLanahan, & Wojtkiewicz, 1992; Wagner, 1991a; Zimiles & Lee, 1991) and step-families (e.g., Rumberger, 1995; Rumberger & Larson, 1998; Sandefur et al., 1992).

In one of the earliest studies to do so, Blau and Duncan (1967) used a national representative data source. They reported that children, particularly males, from single-parent families completed fewer years of formal education than children from two-parent families. Butlin (1999), relying on the SLF (1995) data set, provided yet another viewpoint on family structure, noting that "high school graduates from two-parent families were more likely (44%) to attend university compared to students from lone-parent families (35%)" (p. 23). Other studies suggested a strong relationship between single-parent status and financial difficulties or poverty. For instance, Ross et al. (1996a), drawing on data prepared by the Centre for International Statistics, noted that 76% of single mothers in Canada with children under age 7 were living in poverty. Various studies (e.g.,

LeCompte & Dworkin, 1991; Lefebvre & Merrigan, 1998; Ross et al., 1996a) have also suggested that single-parent status and poverty may be related. By the same token, Ross, Shillington, and Lochhead (1994) pointed out that 50% of poor single mothers in Canada had not completed high school. Clearly, the twin aspects of poverty and single-parent status have several life-course and educational implications for children.

Research has shown a consistent relationship between disrupted families and childhood aggression or behavioural problems (e.g., Lipman et al., 1996; Ross et al., 1998a), and also a relationship between disrupted families and juvenile delinquency (e.g., Dornbusch et al., 1985; Gove & Crutchfield, 1982). Increasing evidence also revealed a positive correlation between disrupted families and adolescent psychopathy (e.g., Blum, Boyle, & Offord, 1988; Wadsworth, Burnell, Taylor, & Butler, 1985), including substance abuse (e.g., Doherty & Needle, 1991; Jenkins & Zunguze, 1998; Needle, Su, & Doherty, 1990). For this report, "psychopathy" was defined as a debilitating mental disorder such as schizophrenia or depression. Some investigators have found a positive correlation between single-parent status and low scores on IQ or teacher-constructed tests (e.g., Blum et al., 1988; Dooley & Lipman, 1996, cited in Lefebvre & Merrigan, 1998; Ekstrom et al., 1986). However, Ross et al. (1998a), in summing up their research on diminished developmental outcomes of children, concluded that "these results do not mean that lone-parenthood per sé is the main factor; rather, there is," they elaborated, "most likely a constellation of factors strongly associated with lone parenthood" (p. iii).

In addition to the family background and demographic dimensions noted above, early school leavers are also more likely to be male (e.g., Alexander et al., 1997; Edmonton Public Schools, 1996; Ensminger & Slusarcick, 1992; Gilbert et al., 1993; Janosz et al., 1997; McNeal, 1995) and to live in large families with several natural or step-siblings (e.g., Alexander et al., 1997; Davies, 1994; Gastright & Ahmad, 1988; Natriello, McDill, & Pallas, 1990). Studies showed that dropouts were more inclined to come from families with other sibling dropouts (e.g., Astone & McLanahan, 1991; Ekstrom et al., 1986; Fagan & Pabon, 1990; Gastright & Ahmad, 1988). Attention has also been devoted to the dual aspects of family size and sibling delinquency. Earlier research by Andrews (1976), Hirschi (1969), and Robins, West, and Herjanic (1975) suggested a positive correlation between family size and childhood delinquency, as has subsequent research (e.g., Brownfield & Sorenson, 1994; Hirschi, 1991; LeFlore, 1988; Morash & Rucker, 1989; Tygart, 1991). However, not everyone agrees that family size necessarily contributes to childhood delinquency. For instance, Figueira-McDonough's (1993) study relying on census data from a major urban area in Arizona found that the delinquency rates were associated with a lower proportion of children per household. Despite the findings of Figueira-McDonough's study, however, several theories and explanations have been advanced to explain the connection between family size and delinquency. In general, it has been postulated that large families may harm children's intellectual growth because of economic and parental time constraints (e.g., Hirschi, 1991; Wilson & Herrnstein, 1985).

Early school leavers are also more likely than school stayers to report marital plans or take on adult roles prematurely (e.g., Barber & McClellan, 1987; Fine, 1991; Grayson & Hall, 1993; SLS, 1991). Studies also showed that for females, pregnancy may be a strong predictor of early attrition (e.g., Fine, 1991; Kronick & Hargis, 1998; Steele, 1992; Tidwell, 1988). In this context, females tend to assume more family obligations than males, regardless of ethnic background, thus increasing the difficulty of maintaining anything approaching an adequate grade point average (McDill, Natriello, &

Pallas, 1985). In support of early autonomy's harmful effects, Howell and Frese (1982) remarked that "early entry into the role of parent or spouse, for instance, is synchronized with other role transitions that compete with school--normally the central activity during adolescence" (p. 52). Velez (1989) reached the same conclusion, noting that youths who take on adult roles prematurely are, in general, less committed to school. Other research studies examining the effects of early transition to adult status suggested that adolescent deviance (e.g., Dornbusch et al., 1985) and economic instability may also be associated with such practices. Beyond these factors, early school leavers may be less likely to be attached to their parents, (e.g., Fagan & Pabon, 1990) and more likely to be highly mobile or homeless (e.g., Brennan & Anderson, 1990; Frank, 1990; Masten et al., 1997; Pittman, 1991).

Research also pointed to a link between the number of residential or geographic moves and dropping out of school (e.g., Alexander et al., 1997; Haveman et al., 1991). Likewise, Velez (1989), using longitudinal data from the sophomore cohort of the High School and Beyond study, noted that "residential mobility also has a negative impact on the amount of 'social' capital available outside the family, that is, parents' relations with the institutions of the community, networking with other parents, and access to channels of information" (p. 121). Other studies affirmed that high mobility may be linked to both higher rates of delinquency (e.g., Figueira-McDonough, 1993), behavioral problems (Rumberger & Larson, 1998; Wood, Halfon, Scarla, Newacheck, & Nessim, 1993), and births out of wedlock, all of which intrinsically affect one's decision to stay in school (e.g., Chong-Bum, Haveman, & Wolfe, 1991).

Similarly, school mobility may also be an important demographic marker in the dropout process. Early research by Pawlovich (1984) and Stroup and Robins (1972) concluded that the number of elementary schools attended differentiated those students who quit school from those who graduated. More recently, Rumberger's (1995) study using data from the 1988 National Educational Longitudinal Survey found compelling evidence that changing schools was, in fact, highly correlated with the propensity to quit. Specifically, he found that "each time a student changed schools, the odds of dropping out increased by 30%" (p. 604). Using data from the National Educational Longitudinal Survey for the period from 1988 to 1994, Rumberger and Larson (1998) reported that just over 23% of all students who changed schools two or more times between Grade 8 and Grade 12 did not graduate from high school. Likewise, Vail (1996), relying on American data from the General Accounting Office, noted that students who frequently changed schools were more likely than other students to have both repeated a grade in the past and experienced problems in core subjects such as English and mathematics. Other scholars reported that students who frequently changed schools were more inclined to drop out of school (e.g., Alexander et al., 1997; Alspaugh, 1999; Alspaugh & Harting, 1995; Astone & McLanahan, 1994; Worrell, 1997). In summing up the research on mobility, Alexander et al. (1997) asserted that "the safest conclusion is that such uprooting experiences at the time of the beginning school transition are generally hard on children" (p. 95).

Proximal factors such as parental influences also appear to influence one's decision to leave school. Parents of dropouts, more often than not, have low educational attainment and may be dropouts themselves (Ekstrom et al., 1986; Grossnickle, 1986; Kronick & Hargis, 1998; Rumberger, 1987). This factor is significant because the amount of education--particularly the mother's education--has been associated with low SES (e.g., Kortering, Haring, & Klockars, 1992; Rumberger, 1983) and

poor school performance of children (e.g., Tidwell, 1988). Research has consistently demonstrated that the parents' educational attainment, regardless of ethnic background, is a robust predictor of the offsprings' dropout behaviour. For example, one longitudinal early school leaving study of 1,242 Black first-graders from an urban community in Chicago reported that maternal graduation directly affected the odds of the offspring dropping out of school (Ensminger & Slusarcick, 1992). Correspondingly, de Brouker and Lavallée (1998), drawing on data from the International Adult Literacy Survey (IALS) for Canada conducted among 5,660 individuals in 1994, found that "young adults aged 26 to 35 whose parents did not complete high school have one less year of schooling than those whose parents graduated from high school" (p. 26). Many other studies supported the findings noted above (e.g., Davies, 1994; Denton & Hunter, 1991; Frank, 1990; Gilbert et al., 1993; Janosz et al., 1997; LeBlanc, Vallières, & McDuff, 1992).

Other studies affirmed the link between low parental educational attainment and offsprings' juvenile delinquency (e.g., Jenkins, 1995). Further, researchers have shown a relationship between parents' education and adolescent IQ test scores (e.g., Natriello et al., 1990). Findings also showed that parents of dropouts valued education less (e.g., Delgado-Gaitan & Trueba, 1991; Ekstrom et al., 1986; Okey & Cusick, 1995) and were less involved with their children's education than were parents of non-dropouts (e.g., Astone & McLanahan, 1991; Fehrmann, Keith, & Reimers, 1987; Gough, 1991; Jenkins, 1995; Rumberger, 1995; Rumberger et al., 1990).

Parents of dropouts also were more likely to be unemployed (e.g., Fine, 1991; Hammack, 1986; Kronick & Hargis, 1998; Mann, 1986) or employed in blue-collar or semi-skilled occupations (e.g., Brennan & Anderson, 1990; Denton & Hunter, 1991; Gilbert et al, 1993). This finding suggests that youths from working-class families are much more prone than youths from other families to leave school before graduation. Additionally, parents of early school leavers tended more than other parents to have permissive parenting styles (e.g., Astone & McLanahan, 1991; Brennan & Anderson, 1990; Fagan & Pabon, 1990; Rumberger et al., 1990), to provide less supervision (e.g., Alpert & Dunham, 1986; Ekstrom et al., 1986; Janosz et al., 1997; Rumberger, 1995), and to use more aversive or negative sanctions against their children (e.g., Fagan & Pabon, 1990; Rumberger et al., 1990). Finally, parents of dropouts were more prone than other parents to have lower educational expectations for their children (e.g., Alexander et al., 1997; Ensminger & Slusarcick, 1992; Okey & Cusick, 1995; Rumberger, 1995; Sandefur et al., 1992) and to let their children make their own decisions (e.g., Rumberger et al., 1990).

Fagan and Wexler (1987), in explicating the contemporary theories of youth violence, noted that the "family plays an active role in socializing youths to violent behaviours through supervision and discipline practices and modeling and reinforcement of antisocial behaviours" (p. 643). Further, Haveman and Wolf (1995) noted that events such as parental criminality are viewed as creating emotional instabilities that hamper normal childhood development. A sizeable body of research demonstrated the connection between ineffective rearing of children and their later criminality (e.g., Gottfredson & Hirschi, 1990; Patterson, 1995, 1996; Snyder & Patterson, 1995). A variety of evidence also pointed to a strong connection between parental and adolescent substance abuse (e.g., Baumrind, 1985; Brook, Brook, Gordon, Whiteman, & Cohen, 1990; Goodwin, 1985; Okey & Cusick, 1995). In summing up the research on parenting style, Rumberger (1995) concluded that "students develop more psychosocial maturity and do better in school when they come from families in which parents monitor and regulate their children's activities at the same time that they provide emotional support" (p. 587).

Personal Characteristics

It has been found that early school leavers are more likely than other students to suffer from behavioural and emotional problems. The consensus in the literature was that students with severe emotional problems have minimal educational prospects. For example, Rylance (1997), found that almost 50% of a national sample of students identified as having severe emotional and mental health problems dropped out of school before having obtained their secondary school diploma. Many other scholars (e.g., Kortering & Blackorby, 1992; U.S. Department of Education, 1994; Rumberger, 1987; Valdes, Williamson, & Wagner, 1990) have reported similar findings. These studies certainly underscore the significance of mental health issues and how they may be related to early school leaving.

Students with behavioural problems were also the focus of yet another body of research related to early school leaving. In general, this research suggested that early school leavers were much more likely to experience antisocial personality disorders (e.g., Binkley & Hooper, 1989; Ekstrom et al., 1986; Mensch & Kandel, 1988; Rumberger, 1987; Rumberger et al., 1990; Thornberry et al., 1985; Tidwell, 1988) as well as early-onset conduct disorders (e.g., Bierman, Smoot, & Aumiller, 1993; Cairns, Cairns, Neckerman, Fergusson, & Gariépy, 1989b; Farmer, 1995; Fergusson & Horwood, 1998; Kupersmidt & Coie, 1990). In the same way, children with early-onset conduct problems were more likely to become delinquent in later life (e.g., Farrington et al., 1990; Fergusson & Lynskey, 1998; Loeber, 1991; Offord & Bennett, 1994; Patterson, DeBaryshe, & Ramsey, 1989) and suffer from a wide range of other problems including substance abuse (e.g., Fergusson & Lynskey, 1998; Offord & Bennett, 1994; Offord et al., 1992; Robins & Price, 1991), suicidal thoughts (e.g., Cairns, Cairns, & Neckerman, 1989a; Plutchik & van Praag, 1997), and psychological depression (e.g., Zoccolillo, 1992).

The literature also suggested a link between confrontation with authority figures and dropping out of school (e.g., Ekstrom et al., 1986; Ensminger & Slusarcick, 1992; Fagan & Pabon, 1990; Janosz et al., 1997; Velez, 1989). Similarly, students who had been involved with the police or the youth justice system were more likely than other students to discontinue school. For example, Gastright and Ahmad (1988), using data from a large American urban district, noted that 36% of early school leavers reported having been being arrested by police. In a study of 162 Canadian high school dropouts, Hartnagel and Krahn (1989) found that 31% of the respondents recalled being questioned by police within the past year. Other studies have shown that delinquency was highly correlated with the tendency to leave school early (e.g., Ekstrom et al., 1986; Fagan & Pabon, 1990; Janosz et al., 1997; Pallas, 1987; Stedman, Salganik, & Celebuski, 1988). Indeed, the literature suggested that early school leavers were more apt than school stayers to be incarcerated. For example, in a study of more than 1,000 American adult male offenders, Bell, Conrad, and Suppa (1984) found that "most" of their participants had dropped out of school shortly after Grade 10. Supporting this position, the Educational Testing Service (1995) reported that approximately 50% of American inmates were, in fact, high school dropouts.

In addition to the personal factors noted above, the dropout was also more likely than the school stayer to have low self-esteem (e.g., DeBlois, 1989; Ekstrom et al., 1986; Finn, 1989; Karp, 1988; Radwanski 1987; Sandefur et al., 1992) and to be controlled by external forces such as peer-group

pressure (e.g., Ekstrom et al., 1986; Giordano, Cernkovich, & Pugh, 1986; Hallinan & Williams, 1990; Leaseberg, Kaplan, & Sadock, 1990; Rumberger, 1987). As well, the early school leaver was more inclined to associate with dropout friends (e.g., Cairns et al., 1989a; Davies, 1994; Dunham & Alpert, 1987; Ellenbogen & Chamberland, 1997; Finan, 1991; Jordan, Lara, & McPartland, 1996; Ruby & Law, 1987) and deviant friends (e.g., Brennan & Anderson, 1990; Cairns et al., 1989a; Claes & Simard, 1992; Fagan & Pabon, 1990; Janosz et al., 1997; Kupersmidt & Coie, 1990; Pittman, 1991). Other personal factors contributing to early school leaving included substance abuse (e.g., Bray, Zarkin, Ringwalt, & Qi, 2000; Brennan & Anderson, 1990; Ellickson, Bui, Bell, & McGuigan, 1998; Fagan & Pabon, 1990; Guagliardo, Huang, Hicks, & D'Angelo, 1998; Wichstrom, 1998), and problems with the management of stress, particularly family stress (e.g., Alexander et al., 1997; Frank, 1987, 1990).

In the context of premature school leaving, another factor that has received considerable attention is youth employment. However, evidence is mixed regarding its costs and benefits. On the one hand, research has shown a strong correlation between working for money and dropping out of school. For example, Jordan and his colleagues (1996), using data collected from the National Educational Longitudinal Study (NELS, 1988), found that employment during school was related to disengagement from school. The study revealed that 35% of the dropout respondents reported that they had left school because they were either seeking employment or had found employment. Numerous other studies also provided a variety of evidence to illustrate the relationship between employment during high school and poor school performance or dropping out of school (e.g., Gilbert et al., 1993; Grayson & Hall, 1993; Marsh, 1991; Radwanski, 1987; Steinberg & Dornbusch, 1991). On the other hand, a variety of other studies also reported favourable effects of youth employment during high school. For example, Greenberger and Steinberg's (1981) study of the "naturally occurring" employment of youths in four California high schools found that employment had several beneficial effects including increased punctuality and responsibility. This study also supported more recent studies on the favourable effects of youth employment (e.g., Carr, Wright, & Brody, 1996; Barton, 1989; Green, 1990; Holland & Andre, 1987).

Statistics Canada (1994) reported that, on average, Canadian high school students work approximately 14 hours per week. Clearly, working for money is widespread and common among Canadian youth. However, despite this well-accepted activity, the literature suggested that working more than 15 hours per week may be cause for concern (e.g., Hanson & Ginsburg, 1988; Radwanski, 1987; Steinberg & Dornbusch, 1991; Stern, Stone, Hopkins, & McMillion, 1990; Sunter, 1993). Other research demonstrated that working excessive hours during high school was also likely to lower the odds of attending a postsecondary institution. For instance, Butlin (1999), relying on the SLF (1995) data set, reported that more high school students who worked "less than 20 hours per week or did not work during their last year of high school attended university (around 45%) than was the case for students who worked more than 20 hours per week (27%)" (p. 30).

Finally, the literature suggested that early school leavers were less likely than other students to participate in extracurricular or other school activities. McNeal (1995) concluded that participation in extracurricular activities significantly reduced the likelihood of leaving school early. According to McNeal's path analysis model, students who participated in athletics were 1.7 times less likely to leave school early (when all other factors were constant) as compared to those who did not participate in athletics. Other investigators shared this view. For example, Ekstrom and her

colleagues (1986), using longitudinal data from the sophomore cohort of the *High School and Beyond* study, noted that dropouts reported lower participation rates in extracurricular athletics than stayers. The 1991 SLS study replicated these results in Canada, reporting that 50% of the national dropout sample had not participated in extracurricular or other school-related activities (Sunter, 1993).

Multiple studies also provided considerable evidence to support the association between extracurricular participation and early school leaving (e.g., Coleman, 1993; Gilbert et al., 1993; Pittman, 1991; Rumberger, 1995) or suggested that participation in extracurricular activities may also lower delinquency rates. Early work by Landers and Landers (1978) and Schafer (1969, 1972) found persuasive evidence that participation in extracurricular school activities was correlated with lower delinquency rates. Subsequent research has supported this finding. For instance, in a study of 500 male adolescents, Holland and Andre (1987) reported that participation in extracurricular and athletic activities significantly lowered delinquency rates. Furthermore, extracurricular participation, as described in the literature, has been shown to have an array of other beneficial effects on youths, including increased involvement in social activities (e.g., Holland & Andre, 1987; Lindsay, 1984), improved self-esteem (e.g., Crain, Mahard, & Narat, 1982; Holland & Andre, 1987), higher educational attainment (e.g., Hanks & Eckland, 1976; Holland & Andre, 1987; Spreitzer & Pugh, 1973), and increased postsecondary participation (e.g., Butlin, 1999).

School-Related Characteristics

Although family background, demographic, and personal characteristics are integral components of the dropout equation and exert powerful influences on young people, school-related characteristics are also important factors. McNeal (1997) provided the rationale for there inclusion of these components in the discussion, suggesting that "evidence indicates that the school is an important piece of the dropout mosaic" (p. 210). Gilbert et al. (1993) also dealt with the school experience. In summing up the results based on the national SLS (1991) study, these researchers concluded that "better knowledge of how students interact with the school environment should increase understanding of the practices and policies that could be implemented to encourage students to remain in school until graduation" (p. 33).

Problems related to school attrition have existed for many years. Concern about high school dropouts began to appear in the education literature as early as the 1950s (Pawlovich, 1984) and has continued into the present. At first, the explanation given for students leaving high school tended to identify family background and personal characteristics (e.g., Pawlovich, 1984; Wehlage & Rutter, 1986). However, more recent research has suggested that the reasons for leaving school may have changed with time. For example, Jordan et al. (1996) contended that "the most frequently cited reasons offered by dropouts for leaving school were related to contextual factors within the school itself, as opposed to external influences" (p. 69).

Previous studies supported this conclusion. Radwanski (1987) found that 43% of his sample of Ontario dropouts attributed their decision to drop out to school-related reasons, compared to the 23% who emphasized personal reasons. An additional body of research also found that dropouts most often cited school-related factors (e.g., Gilbert et al., 1993; Jordan et al., 1996; Pawlovich, 1984, 1985; Rumberger, 1987; Sharman, 1990; Tanner, 1990; Tanner, Krahn, & Hartnagel, 1995; Wehlage et al., 1990). This finding indicates that the current dropout problem exist not only because of

family background or personal characteristics, but also because of what happens when students attend school.

In the context of school-related factors, the typical dropout has several attributes that are easy to itemize. Before making a formal withdrawal or exit, dropouts characteristically perceive the school environment as an undesirable and uninviting place. For instance, Jordan et al. (1996), drawing on American data from the National Educational Longitudinal Survey (1988), found that 51% of respondent dropouts indicated that they simply "didn't like school" (p. 70). Other studies supported the association between disliking school and dropping out (e.g., Bowditch, 1993; Calabrese & Poe, 1990; Dunham & Alpert, 1987; Tidwell, 1988). Dropouts also reported a negative attitude towards school (e.g., Barrington & Hendricks, 1989; Grisson & Shepard, 1989; Okey & Cusick, 1995; Smith, 1986), as well as a feeling of general dissatisfaction (Alpert & Dunham, 1986; Barber & McClellan, 1987; Ekstrom et al., 1986).

Other studies cited problematic school behaviour such as showing up late for class (e.g., Alexander et al., 1997; Ekstrom et al., 1986) or skipping class altogether (e.g., Coleman, 1993; deBettencourt & Zigmond, 1990; Edmonton Public Schools, 1996; Ensminger & Slusacick, 1992; Gilbert et al., 1993; Lee & Burkam, 1992; McAlpine, 1992; Norris, 1993; Rumberger, 1995; Rumberger et al., 1990). In a sample of 651 Wisconsin high school students, Barrington and Hendricks (1989) found a strong association between truancy and dropping out of school. They used permanent school records to collect data on student absences in Grades 1 to 12. The study revealed that dropouts had significantly more absences for all grade levels except Grade 1. With respect to Grades 5 and 9, dropouts had, respectively, two times and three times more absences than school stayers. Velez (1989) replicated these results, using the High School and Beyond (HSB) American data set. This national longitudinal study of U.S. high schools conducted by the National Center for Education Statistics found that "the more days a student missed school without a valid reason, the more likely he or she was to drop out" (p. 124). Likewise, the Edmonton Public Schools District (1988) noted that poor attendance was strongly associated with dropping out of school. According to Winters and Kickbush (1996), skipping class was one of the first signs that students were in trouble and losing their way academically. Similarly, Bryk and Thum (1989) noted that truancy was one of the strongest predictors of premature school leaving. Further, Claes and Simard (1992) and Loeber and Stouthamer-Loeber (1987) suggested a connection between truancy and delinquency. Winters and Kickbush (1996), relying on data from a Los Angeles County Office of Education study, similarly affirmed that "truancy is the most powerful predictor of juvenile delinquent behavior" (p. 1).

In general, the literature supported the idea that truancy and discipline problems may be shared risk characteristics for dropping out of school (e.g., deBettencourt & Zigmond, 1990; Ensminger & Slusacick, 1992; Grisson & Shepard, 1989; Lee & Burkam, 1992; Okey & Cusick, 1995; Rumberger, 1987, 1995; Rumberger et al., 1990). The literature also showed that students who quit school were more apt than other students to exhibit disruptive behaviour in class (e.g., Barrington & Hendricks, 1989; Davies, 1994; Lee & Burkam, 1992; Rumberger, 1987, 1995; Rumberger et al., 1990; Wagner, 1991b), particularly early aggressive behaviour (e.g., Barrington & Hendricks, 1989; Ensminger et al., 1996; Ensminger & Slusarcick, 1992). More precisely, early school leavers, in comparison to stayers, tended to accumulate significantly more suspensions and expulsions. The early studies of Cottle (1975) and Rumberger (1981) and the later ones of Binkley and Hooper (1989), Ekstrom et al. (1986), Fine (1991), Jordan et al. (1996), Kronick and Hargis (1998), and Okey and Cusick (1995)

clearly showed that suspensions and expulsions highly correlated with the propensity to leave school early. Besides these factors, dropouts were usually below grade level for their age (e.g., Ekstrom et al., 1986; Gastright & Ahmad, 1988; Janosz et al., 1997; Kaufman, McMillen, Germino-Hausken, & Bradby, 1992; Velez, 1989) and often felt isolated and alienated from teachers, peers, and the curriculum (e.g., Ensminger & Slusarcick, 1992; Finn, 1989; Okey & Cusick, 1995; Quirouette, Saint-Denis, & Huot, 1990), particularly during the transitional period between elementary and high school (e.g., Popp, 1991).

Another area of research associated with student isolation and alienation is the structural concept of pupil/teacher ratio (P/T ratio). McNeal (1997) emphasized the importance of class size in the dropout equation, pointing out that "larger P/T ratios may increase the student's likelihood of dropping out by decreasing the number of interactions between pupils and teachers, thereby increasing the level of isolation and alienation" (p. 214). From a different viewpoint, Bickel and Lange (1995) reported that school districts with relatively high P/T ratios tended to have statistically significant lower post secondary enrollment rates. Overall, however, evidence was mixed regarding the association between class size and dropping out of high school. Several studies reported that high pupil/teacher ratios significantly affected school attrition rates (e.g., Larter & Eason, 1978; McNeal, 1997), but other studies reported no marked difference in withdrawal statistics (e.g., Bryk & Thum, 1989).

In identifying the school-related reasons for dropping out, much emphasis has been placed on the construct of "boredom." One prime reason offered by students for leaving school early was related to boredom with the classroom or school routine (e.g., Barber & McClellan, 1987; Edmonton Public Schools, 1996; Farrell, Peguero, Lindsey, & White, 1988; Spain & Sharp, 1990). According to the SLS (1991) study, boredom and disliking school were common reasons for quitting. More precisely, 22% of females and 18% of males reported boredom as their main reason for dropping out of school. Radwanski (1987) uncovered a similar pattern by observing that boredom was mentioned more often than difficulty with course work.

In the present context, however, one needs to approach the construct of "boredom" with a degree of caution. Many respondents may have chosen socially acceptable or less harsh terms, such as "boredom," rather than responding with a self-degrading, but truthful answer, such as "limited scholastic ability." The construct of "boredom" has also been an area of research interest for criminologists. The research was consistent with the theory that young offenders, particularly young offenders from low SES backgrounds, were more likely than nondelinquents to experience boredom to a greater extent. While a considerable and longstanding body of research was consistent with this supposition (e.g., Brownfield & Sorenson, 1993; Landau, 1976; Nettler, 1984), this research was less clear on the underlying mechanisms, processes, and causal factors.

Low academic achievement, variously defined, also appeared to expose young people to a greater number of individual risks including criminality, academic disengagement, and early school leaving. Recent studies have consistently shown that early school leavers were more prone than school stayers to experience academic achievement problems in school (e.g., Ensminger & Slusacick, 1992; Gilbert et al., 1993; Janosz et al., 1997; Jordan et al., 1996; Kaplan, Peck, & Kaplan, 1995; Pittman, 1991; Rumberger, 1995). Specifically, the literature suggested that students experiencing difficulties within the school setting were more inclined than other students to expend relatively little effort (eg.,

Davies, 1994), complete fewer homework assignments (e.g., Gerics & Westheimer, 1988; Lee & Burkam, 1992; Rumberger, 1995), acquire fewer school credits (e.g., Waterhouse, 1990), read below grade level (e.g., Grossnickle, 1986; Hess, 1987; Self, 1985; Smith, 1986; Soderberg, 1988), and, in general, have lower educational aspirations (e.g., Hanson & Ginsburg, 1988; Okey & Cusick, 1995; Rumberger et al., 1990), though other reasons for experiencing difficulties certainly exist.

Another body of research showed that dropouts acquired lower grades than school graduates. Hahn (1987) found that students who had received low marks and failed a grade were four times more likely than other students to drop out of school. Similarly, Ekstrom et al. (1986), using longitudinal data from the sophomore cohort of the High School and Beyond national study, reported a correlation of one standard deviation between dropout and nondropout grades. That is, dropouts reported grades of mostly Cs compared to stayers, who received grades of mostly Bs. Similarly, Ensminger and Slusarcick (1992) reported that males receiving high marks in the first grade had more than twice the chance of graduating from school than those with low marks. Several other studies have also shown that poor grades were correlated with the propensity to leave school early (e.g., Alexander et al., 1997; Edmonton Public Schools, 1996; Fagan & Pabon, 1990; Janosz et al., 1997; Waterhouse, 1990).

Students with poor grades were also highly correlated with the propensity to engage in delinquent behaviours. For example, in a study of 1,637 Mexican-American and caucasian non-Hispanic dropouts, Chavez, Oetting, and Swaim (1994) found that students with poor grades were far more likely than other students to engage in criminal activity. Other studies have also reported an association between delinquency and poor school performance (e.g., Gottfredson & Hirschi, 1990; Loeber & Stouthamer-Loeber, 1987). Further, research has shown that poor school performance was positively correlated to later adult offender status. For example, in a normative sample of 458 French-speaking Montreal males, LeBlanc, Vallières, and McDuff (1993) found a strong association between school performance and adult criminality. Initial self-administered questionnaires were completed at an average age of 14 and readministered at an average age of 16. Subsequent interviews indicated that 33% of the subjects reported committing at least one *Canadian Criminal Code* Offence between the ages of 18 and 30.

Grade failure has also been linked to dropping out; for example, Radwanski (1987), relying on data from the Goldfarb study, noted that "82 per cent of dropouts report having failed at least one subject while in high school" (p. 78). Similarly, Barrington and Hendricks' (1989) study revealed that dropouts, in comparison to graduates, received significantly more failing grades at all grade levels. Dauber, Alexander, and Entwisle (1993) supported this hypothesis further, contending that academic deficiencies were, in fact, significantly associated with grade failure. Rumberger (1995) suggested that grade retention was the single most important school-related predictor of early school leaving. Using data from the National Educational Longitudinal Survey, Rumberger (1995) found compelling evidence suggesting that grade retention was highly correlated with the propensity to drop out of school. More precisely, the study revealed that "students who were held back in school had 6 times the odds of dropping out" (p. 606) compared to other students. Hahn (1987) reported comparable findings, contending that students who were held back in school had roughly 4 times the probability of dropping out as compared to those students who were not held back. Other studies also affirmed a positive relationship between grade retention and dropping out of school (e.g., Barrington & Hendricks, 1989; Grisson & Shepard, 1989; Janosz et al., 1997; Lee & Burkam,

1992; Roderick, 1993), particularly for those students failing the later grades. For example, Kaufman and Bradley (1992) found that students who failed the upper grades were far more likely to drop out of school compared to their junior counterparts. Therefore, with respect to dropping out of school, grade retention may not be equally consequential across all grade levels.

Dropouts, as described in the literature, were generally seen as students who had experienced many difficulties in learning, particularly in core high school subjects. Developmentally, the dropout was seen as a student who had experienced difficulties in learning and adjusting from elementary to secondary school (e.g., Alexander et al., 1997; Ensminger & Slusarcick, 1992; Finn, 1993; Kronick & Hargis, 1998; Newmann, Wehlage, & Lamborn, 1992; Okey & Cusick, 1995; Rumberger, 1995), and who had often experienced academic failures or disengagement in subjects such as mathematics and English (e.g., Dauber et al., 1993; Edmonton Public Schools, 1996; Ensminger et al., 1996; Gilbert et al., 1993; Rumberger et al., 1990; Schwartz, 1995). For example, Gastright and Ahmad (1988), using data from a large American urban district, reported that 74% of early school leavers had failed English in the year prior to quitting school. Alexander et al. (1997) emphasized the importance of students doing well in the core subjects, pointing out that mathematics and English were the "foundation of virtually all other later learning, so to fall behind academically at the start in these subjects ought to cast a long shadow on a child's life" (p. 90). Butlin's (1999) study supported this specialized perspective, concluding that students with problems in either mathematics or English were far less likely than other students to attend a postsecondary institution. Other research noted that poor academic performance and lack of parental involvement in the child's schooling were positively related (e.g., Fehrmann et al., 1987; Myers et al., 1987). Overall, a mismatch seems to have existed between the student with limited scholastic ability and the high school setting. For many students, this mismatch manifested itself as disruptive and deviant behaviour that inevitably challenged the teacher's authority. An additional consequence of cessation of academic effort or limited scholastic ability may be consignment to a vocational or basic stream upon Grade 8 graduation.

The practice of academic streaming or tracking has also been linked to early school leaving and has received considerable attention. For example, Edmonton Public Schools' (1996) analysis of the characteristics and causes of dropouts in Alberta schools reported that 29% of dropouts were in the academic stream as compared to 51% in the vocational stream. Echoing these findings, Radwanski (1987) noted that only 12% of the students in the academic stream left high school before graduation, as compared to 62% and 79% in the general and basic streams, respectively. Further supporting the connection between streaming and dropping out, Karp (1988) and Quirouette et al. (1990) pointed out that streaming might significantly affect a student's educational prospects. Other studies suggested that streaming tended to have a negative effect on student learning (e.g., Coleman & Hoffer, 1987; Holmes, 1990) and may have been correlated with other social factors such as delinquency (e.g., Loeber & Stouthamer-Loeber, 1987) and low SES (e.g., Curtis, Livingston, & Smaller, 1992; Hoffer, Rasinski, & Moore, 1995; Radwanski, 1987). Overall, studies from a variety of research traditions have repeatedly demonstrated that consignment to a nonacademic curriculum significantly increased a student's propensity to leave school early (e.g., Alexander et al., 1997; Davies, 1994; Denton & Hunter, 1991; Fine, 1991; Gamoran & Mare, 1989; Okey & Cusick, 1995; Pallas, 1987; Parkin, 1989).

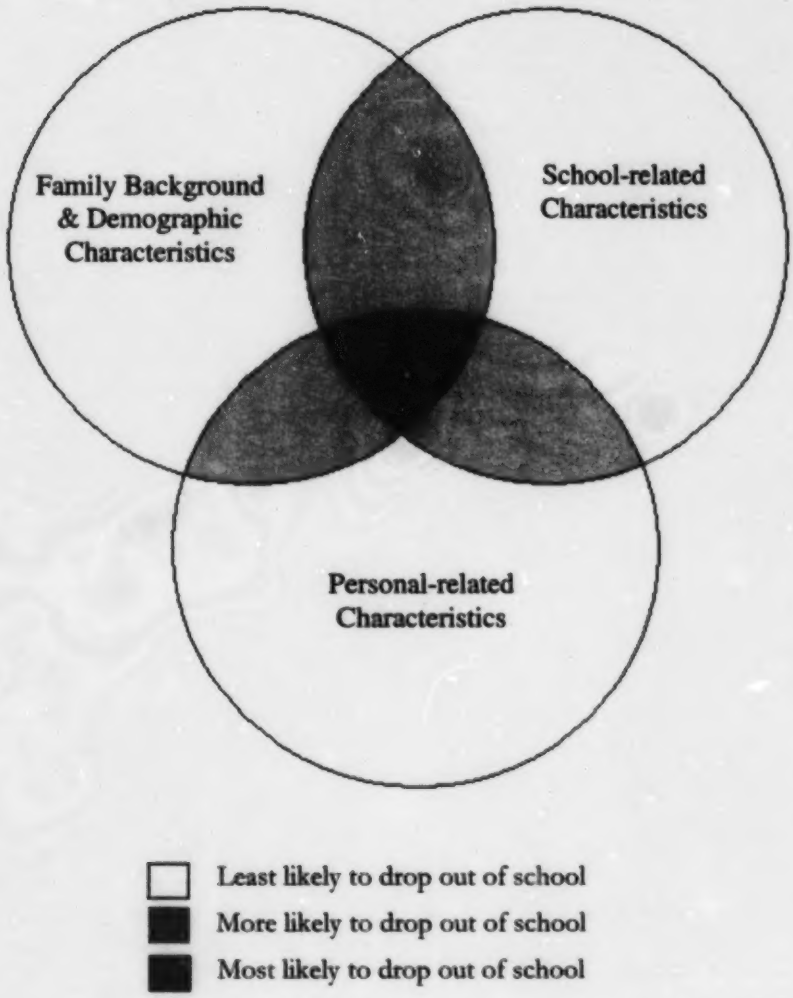
Another perspective on dropping out emphasized institutional academic standards. In general, school-reform policies have been reported to include five broad types of standards. These included (a) a more difficult and demanding curriculum including additional courses in science and math; (b) more demanding time requirements in the form of longer school days and weeks; (c) higher standards for school achievement, particularly on standardized tests; (d) more demanding requirements for homework; and (e) more rigid attendance and disciplinary policies (McDill et al., 1985). However, evidence was mixed regarding the link between institutional academic standards and early school leaving. Several studies suggested that increasing the overall emphasis on school reform policies would reduce the dropout rate (e.g., Bryk & Thum, 1989; Radwanski, 1987) while other studies suggested the opposite effect (e.g., Barber & McClellan, 1987; Hess, 1986; McDill et al., 1985, 1986; McNeal, 1997; Tanner, 1989), "particularly if schools had not implemented other organizational and instructional changes" (Finn, 1989, p. 117).

Other research supported the assertion that institutional climate may influence student behaviour (e.g., Weishew & Peng, 1993) and school-completion rates (e.g., Bryk & Thum, 1989; Pittman & Haughwout, 1987). More precisely, this research concluded that a negative student-teacher relationship may significantly affect a youth's educational prospects. In a study designed to evaluate the concept of school climate, Birch and Ladd (1997) reported negative student-teacher relationships to be a strong correlate in a wide range of adverse outcomes including school-adjustment problems, poor academic performance, aggressiveness, and negative school attitudes. Several other scholars' findings (e.g., Kaufman & Bradley, 1992; Okey & Cusick, 1995; Pianta, 1994; Pianta & Steinberg, 1993; Pianta, Steinberg, & Rollins, 1995) supported Birch and Ladd's study. Clearly, teachers and administrators may exhibit a like or dislike for certain students. For example, students labelled with the stigma of "young offenders" may not be particularly wanted or recruited by certain schools. Consequently, these students face an uphill battle for administrative acceptance and may be encouraged to leave school by what DeRidder (1990) called "orderly withdrawal." Pestello (1989), summarized the research on school-completion rates and student-teacher relationships by observing, "teachers come to define some students negatively and others positively. An important element in this identification process," he elaborated, "is an individual's past behavior" (p. 296). Without doubt, teachers and administrators play an integral part in a student's commitment to schooling.

Conceptual Framework of the Factors Affecting Early School Leaving

From the review of the theoretical and empirical literature and the findings of the two studies, the present framework (Figure 1) was developed to illustrate the factors affecting early school leaving: (a) family background and demographic characteristics, (b) personal characteristics, and (c) school-related characteristics. The specific factors associated with early school leaving can be found in Appendix A. The conceptual framework assumes no priority ranking among characteristics but hypothesizes that a variety of factors including personal, social, situational, structural, and contextual influences, which are both proximal and distal to the school setting, can lead to early school leaving. The Venn diagram graphically represents the variables related to early school leaving. As the number of risk factors increases (i.e. the shading darkens in the Venn diagram), so does the likelihood of dropping out of school.

Figure 1


Family Background & Demographic Characteristics
School-related Characteristics
Personal-related Characteristics
Least likely to drop out of school
More likely to drop out of school
Most likely to drop out of school

Conceptual Framework of the Factors Affecting Early School Leaving

Summary

This review provided a basis for understanding the controversies and perspectives related to the school-dropout problem. The literature suggested a constellation of specific factors contributing to students dropping out of school. These factors were grouped into three broad categories: family background and demographic-related factors, personal characteristics, and school-related variables. Several aspects contributing to students quitting school were extensively studied in the research literature while others were not. Early school leavers come from a cross-section of society; thus, any attempt to stereotype dropouts would be misleading. A review of mainly Canadian and American research literature suggested, however, that these youths have common attributes.

With regard to family background and demographics, socio-economic and ethnic factors were found to be highly predictive of dropout behaviour. In fact, these two characteristics may be the factors most strongly related to early attrition. Other family background and demographic factors related to dropping out of school included neighbourhood and community influences, family structure, being male and living in a large family, moving away from home at an early age and taking on adult responsibilities prematurely, moving often and changing schools frequently, having parents who were dropouts themselves, having parents with ineffective child-rearing skills, and having parents who were criminals or substance abusers.

Personal characteristics related to early school leaving form the second set of factors. The literature strongly suggested that antisocial and early-onset conduct disorders were important considerations in understanding dropout behaviour and delinquent behaviour. Moreover, in addition to sharing common antecedents, delinquent behaviours figured prominently in theories about why some students leave school early. Several other personal factors have also been associated with early school leaving, including low self-esteem, having friends who are dropouts and delinquents, substance abuse, and emotional instability. Other aspects related to early school leaving included employment with high working hours/week during the high school years and a low participation rate in extracurricular and other school-based activities.

School-related variables made up the last unit of analysis. Among dropouts, the combination of disliking and not attending school is a common theme in the literature. Scholars have also agreed that even after controlling for other factors, truancy and discipline problems may be found to be shared risk determinants for dropping out. Additional school-related factors associated with early school leaving included disruptive and aggressive classroom behaviour, a disproportionately high number of suspensions and expulsions, retention in one or more grade levels, and academic deficiencies. As well, dropouts were more likely than non-dropouts to find school boring, acquire low grades, exhibit low IQ scores, and experience learning difficulties in subjects such as mathematics and English. Other research suggested that raising academic standards and streaming may also be linked to early school leaving. Finally, the literature suggested that a negative student-teacher relationship may adversely affect a student's future educational prospects.

While the organizing structures of family background, personal characteristics and school related variables are a useful heuristic for understanding what factors or variables are associated with early school leaving, it is important for the reader to recognize that the inter-relationships between these variables are highly interactive to the extent that, for many students, leaving school is the result of the complex interplay among multiple causes.

COMPARISON AND CONTRAST OF STUDIES

This section of the paper identifies and discusses differences and common themes of the two studies. To provide a framework for the comparison and contrast of the two studies, twelve key issue are addressed: (a) social climate: listening to and supporting students; (b) attitudinal factors towards the school environment; (c) environmental stability: transition and mobility; (d) child abuse; (e) family influences; (f) neighbourhood and community; (g) individual characteristics; (h) companions; (i) number of schools attended and suspensions; (j) cognitive ability; (k) school behaviour problems; and (l) employment, finances, high school credits, and future plans. The discussion includes literature from other relevant theoretical and empirical studies, some of which have been cited earlier. When practical, the findings of the present studies are compared with data from national studies.

School Climate: Listening to and Supporting Students

The consensus in the literature is extremely clear: school-related reasons for dropping out are most frequently cited by early school leavers. For example, an older study analyzing U.S. national longitudinal data affirmed that 44% of the dropouts reported school-related reasons for their decision to quit (Rumberger, 1983). A recent Canadian study using national data noted that dropouts were more likely than non-dropouts to have had negative school experiences (Sunter, 1993). Many other empirical studies (e.g., Barber & McClellan, 1987; Bearden, Spencer, & Moracco, 1989; Ekstrom et al., 1986; Gilbert et al., 1993; Karp, 1988; Radwanski, 1987) have reported similar findings. Specifically, the literature suggested that students experiencing difficulties at school were more inclined than other students to cite teachers and administrators as areas of concern. For instance, Jordan et al. (1996), drawing on American data from the National Educational Longitudinal Survey (1988), found that 34% of the dropout respondents indicated that they just "couldn't get along with teachers" (p. 70). Many other studies (e.g., Edmonton Public School Board, 1996; Farrell, 1990; Gilbert et al., 1993; Jordan et al., 1996; Murdock, 1999; Spain & Sharp, 1990; Tanner et al., 1995) have reported similar findings. Obviously, a negative orientation towards the school environment or poor relations with educators may increase a student's propensity to drop out.

The analysis of the *Barriers Report* (2001) noted that 19 focus groups accounting for 57 comments dealt with students' affective experience of school. Specifically, the most powerful sub-theme in this category, mentioned by 17 focus groups was comments relating to the importance of caring relationships between staff and students. A similar finding was found in the *Early School Leaving Study* (2001). The qualitative data from this study revealed that the respondent group viewed high school staff, especially administrators, unfavourably and also experienced academic achievement problems. These findings are not surprising given that the overwhelming majority of participants had dropped out by the end of Grade 10. Several focus groups from the *Barriers Report* (2001) also noted that "schools are not always caring or welcoming places" (p. 13). By the same token, Connolly, Hatchette, and McMaster (1999) noted that "From the perspective of developmental contextualism, it was anticipated that pubertal maturation would have deleterious effects on children's adjustment and would alter the relationships between school attitudes and school achievement comment" (p. 24).

The literature also noted that the impact of the transition from elementary to high school can, of course, often be difficult and stressful, especially for poor children (e.g., Hirsch & Rapkin, 1987; Seidman, Allen, Aber, Mitchell, & Feinman, 1994; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987), thus leading to motivational problems (Eccles et al., 1993) and early school leaving (Lichtenstein, 1993; Rumberger, 1995; Spain & Sharpe, 1990). Echoing these findings, the *Barriers Report* (2001) noted that "Program transitions from junior high to high school and from high school to post-secondary study were suggested by 15 focus groups as deserving attention" (p. 16). In spite of the generally less favourable response to high school staff, data of the *Early School Leaving Study* (2001) showed that the participants reported positive associations with elementary school teachers and administrators. These findings suggest that the respondent group may have been highly satisfied with elementary school personnel. The NLSCY (1996) study supported this study's findings, concluding that 86.8% of Canadian children either "almost always" or "often" looked forward to elementary school (Ross, Scott, & Kelly, 1996b). Connolly, Hatchette, and McMaster (1998) also supported this view, contending that "the late elementary school years are, by and large, a positive experience for these youth" (p. 26).

Attitudinal Factors Towards The School Environment

Attitudinal factors towards the high school environment help to explain the phenomenon of early school leaving. Both studies asked questions attempting to learn the participants' general feelings towards school. The following provides information concerning the extent and nature of several attitudinal factors. The analysis focuses on four broad categories including (a) feeling of alienation, (b) feeling of boredom, (c) friends at school, and (d) participation in extracurricular activities.

Several researchers have affirmed the connection between alienation or isolation and dropping out of school (e.g., Altenbaugh, Engel, & Martin, 1995; Finn, 1989; Jordan et al., 1996; Karp, 1988; LeCompte & Dworkin, 1991; Radwanski, 1987; Sullivan, 1988). The analysis of the *Barriers Report* (2001) noted that 31 participants in 13 focus groups most frequently talked about students' emotional or affective relationship to school being characterized by isolation and feelings of low self-esteem or being disconnected from the social fabric of the school. However, contrary to expectation, the findings of the *Early School Leaving Study* (2001) revealed that only 3 of the 12 participants had experienced such feelings. For the *Early School Leaving Study* (2001), "alienation" was loosely defined as noninvolvement or nonattachment to the school, particularly during the transition period from elementary to secondary school.

Similarly, a well-established connection exists between school boredom and early departure (e.g., Altenbaugh et al., 1995; Edmonton Public School Board, 1996; Radwanski, 1987; Spain & Sharp, 1990; Sunter, 1993; Tanner et al., 1995). Replicating the results of the studies mentioned directly above, the *Early School Leaving Study* (2001) found that three-quarters of the respondents described high school as "boring." Further, when asked why they found school boring, the participant' consensus was that school had little relevance to their lives or present situations. The *Barriers Report* (2001) reached the same conclusion, noting that five focus groups mentioned the lack of program relevance for students. The *Barriers Report* (2001) also commented on a related theme, noting that "lack of program flexibility for students and a system of education that does not offer students learning opportunities congruent with their learning styles or needs" (p. 12) was raised by 12 focus

groups across the nine program-related sub-themes.

Interview data reveal that all 12 participants in the *Early School Leaving Study* (2001) had strong commitments to friends while attending high school. However, the *Barriers Report* (2001) did not find a similar pattern. Specifically, focus group participants in the *Barriers Report* (2001) were asked to explore their personal experiences with the issue of early school leaving. In response to the question, 31 participants in 13 focus groups most frequently talked about being disconnected from the social fabric of the school. Past research suggested that early school leavers were more inclined than their non-dropout counterparts to have fewer friends (e.g., Ekstrom et al., 1986; Ellenbogen & Chamberland, 1997; Kaufman et al., 1992; Parker & Asher, 1987). Using national data from the NLSCY (1995) study, Ross et al. (1996b) reported that, on average, roughly one-half of Canadian children had two or three good friends while approximately one-third had four or five good friends. On the topic of friends, other research empirically supported the notion that early school leavers were more likely to select companions similar to themselves (e.g., Brown, 1990; Epstein, 1983). Consistent with the literature, the participants in the *Early School Leaving Study* (2001) did in fact associate with companions who were also dropouts. At least for students like the participants in this study, the quality as opposed to the quantity of friends may be a better predictor of who leaves school early.

A final research finding worth noting showed that two-thirds of the respondent group in the *Early School Leaving Study* (2001) had not participated in extracurricular activities while attending high school. For several participants, involvement in social activities such as athletic teams, clubs, and various other pursuits was not part of their daily schedules. These results generally support the suggested outcomes of the *Barriers Report* (2001), which noted that "There are greater opportunities to support students in overcoming barriers to success through extra-curricular activities. . ." (p. 24). Generally, the research evidence suggested support for the present studies' assertions that lack of participation in extracurricular activities, especially athletics, considerably increases a student's likelihood of dropping out of school (e.g., Davalos, Chavez, & Guardiola, 1999; Gilbert et al., 1993; Janosz et al., 1997; Mahoney & Cairns, 1997; McNeal, 1995; Pittman, 1991; Zill, 1995) and getting into trouble (e.g., Landers & Landers, 1978; Zill, 1995). The findings from the *Barriers Report* (2001) generally support those of the literature cited. In particular, the *Barriers Report* (2001) noted that five focus groups spoke about affective supports for students, including keeping students focused through athletics.

Environmental Stability: Transition and Mobility

The following analysis provides specific information concerning environmental and geographic stability. Environmental instability, particularly the early environment, is one of several risk factors related to early school leaving (e.g., Haveman et al., 1991) and delinquency (e.g., Hein & Lewko, 1994; Loeber & Farrington, 1998; Oakland, 1992; Wilson & Howell, 1995). Consistent with this statement, the *Barriers Report* (2001) noted that "There is a growing appreciation that the early environment children grow up in powerfully shapes their future opportunities for success in school" (p. i). The number of household moves, number of detention facilities attended, transiency, homelessness, social-service placements, and early independence all contribute to creating a degree of environmental instability. Young people who lack geographic and environmental stability in their lives may be at higher risk for psychological- and social-adjustment problems as well as being at risk physically (e.g., Attles, 1993; Gonzalez, 1991; Hein & Lewko, 1994; James, Smith, & Mann, 1991; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993; Rafferty & Shinn, 1991).

Some evidence cited in the literature suggested that children who move often and come from unstable family environments are more likely than other children to have behavioural problems or antisocial tendencies (e.g., Rafferty & Shinn, 1991; Sampson & Laub, 1993; Saner & Ellickson, 1996; Ziesemer, Marcoux, & Marwell, 1994). More precisely, other studies linked childhood homelessness to classroom-behaviour problems (e.g., Masten, 1992; Masten et al., 1993; Ziesemer et al., 1994). Naturally, a strong association exists between environmental instability and poor academic performance (e.g., Bruno & Isken, 1996; Hein & Lewko, 1994; Plankenhorn, 1989; Schuler, 1990; Ziesemer et al., 1994; Zima, Wells, & Freeman, 1994).

Noticeable differences existed between the participants in the *Early School Leaving Study* (2001) and the general profile of 15-to-18-year-olds in Canada. Census data for 1996 revealed that on average, 56.7% of residents in Canada lived in the same dwelling for at least five consecutive years. In contrast, the participants in the *Early School Leaving Study* (2001) had experienced an average of at least 10 household moves, some participants experiencing five residential moves over a one-year period. Okey and Cusick (1995), using a qualitative approach, also found that frequent household moves occurred among their 12 dropout participants. The data in the *Early School Leaving Study* (2001) also revealed that most participants investigated in this study had a history of family-crisis intervention. Placement in a family-crisis facility such as a foster or group home also contributed to a lack of continuity in the participants' lives. Three-quarters of the participants in the *Early School Leaving Study* (2001) had experienced at least one placement with a social service agency. Given the above findings, it is not surprising that the *Barriers Report* (2001) suggested the importance of effective school-home communication and positive working relationships supported by community resources, particularly for those students with extended absences from school. Research evidence reported in the literature suggested that children and adolescents who come into contact with social service agencies typically have more problems than their counterparts who have not had such contact. According to Raychaba (1992), many of these children have problems resulting from abusive histories and disruptive behaviours, while substantial numbers are plagued with depressive disorders, substance-abuse problems, learning problems, school failure, truancy, and early school leaving (e.g., Canadian Child Welfare Association, 1990, cited in Hein & Lewko, 1994; Oakland, 1992; Raychaba, 1989).

Within the context of environmental stability, just over half of the participants in the *Early School Leaving Study* (2001) had (a) run away from home, (b) lived a transient lifestyle (i.e., they had recurrently wandered from one residence to another or lived on the streets for short or extended periods of time), (c) been asked to leave home, or (d) been locked out of the home. Six of these 7 participants also had a history of child abuse. Although why these participants left home at such a young age is not entirely clear, many seem to have been running from sometimes turbulent and stressful home environments. Predictably, these participants had experienced many problems, including high rates of abuse, poverty, school absenteeism, and failure. In summing up one of the recommended strategies, the *Barriers Report* (2001) noted that supporting positive parenting is central to building a "solid foundation for student success in school by encouraging community agencies with mandates that include family support to work closely with school jurisdictions to ensure parents have the assistance they need to provide stimulating and nurturing home environment" (p. i).

Child Abuse

The *Barriers Report* (2001) reinforced the notion that early school leavers "tended to be the most disenfranchised students in schools while coping with complex problems in their lives" (p. i). The results of this study support the findings of the *Early School Leaving Study* (2001) which noted that school dropouts do, in fact, deal with complex problems in their lives, including child abuse. In the *Early School Leaving Study* (2001), the respondents and their files reported varying accounts regarding child abuse (i.e., abuse before age sixteen), including abuse witnessed, physical and sexual abuse experienced, emotional abuse, and neglect. The documents showed that three-quarters of the participants in the study had been exposed to some type of child abuse. This finding supports other research evidence that suggests a connection between abuse and subsequent deviant behaviour. Clearly, the weight of the evidence emphasized that individuals who have experienced or witnessed abuse in childhood may be at higher risk for aggressive or violent behaviour in later life. Other research reported that children who witness or encounter abuse may be at a higher risk for school failure, poor academic performance, disciplinary problems, and early school leaving (e.g., Eckenrode, Laird, & Doris, 1993; Rogosch & Cicchetti, 1994; Sudermann & Jaffe, 1997; Widom, 1997). Given the above findings, it is not surprising that the *Barriers Report* (2001) suggested that "Community agencies with mandates that include family supports work closely with school jurisdictions to promote and facilitate positive parenting that provides stimulating and nurturing home environments" (p. 23).

Family Influences

The interview data from the *Early School Leaving Study* (2001) reinforced the conclusion that the overwhelming majority of participants had experienced several negative family influences such as parental rejection, family conflict and marital discord, inadequate parental supervision, inconsistent parental discipline, and parental substance abuse. In particular, the respondents provided disheartening testimony of parental rejection. Slightly more than one-half of the participants had been rejected by a parent or guardian. Further analysis of the data revealed that these respondents also had a history of childhood abuse. The results support the conclusion that deficits in parental bonding and attachment may result in problematic childhood behaviour, including classroom misbehaviour, antisocial behaviour, substance abuse, and early school leaving. This study's findings join a growing body of research literature suggesting that disturbed family relationships have long-

term implications for the individual. Given the findings summarised above, it is not surprising that the *Barriers Report* (2001) recommended strategies for positive parenting. In particular, the *Barriers Report* (2001) noted that "the concept of positive parenting is so fundamental to building a solid foundation for students' success in school that all community agencies with mandates that include family supports should work closely with school jurisdictions to ensure parents have the assistance they need to provide stimulating and nurturing home environments" (p. 23).

Closely connected to disturbed family relationships is marital discord. The *Early School Leaving Study* (2001) supported the conclusion that children from families where marital discord is pervasive may be at a greater risk than other children for early behaviour problems, which, in turn, predict dropping out of school. Within the context of family influences, a final important research finding showed that half of the participants in the *Early School Leaving Study* (2001) came from families where parental substance abuse was widespread. Not unexpectedly, two-thirds of these participants in *Early School Leaving Study* (2001) study also had a history of substance abuse. The analysis of the *Barriers Report* (2001) noted that ten focus groups raised the issue of the use of illegal drugs or alcohol. These ten focus groups, which each included from 6 to 12 participants, also highlighted the concern that drugs or alcohol seem to be easier to get at an earlier age than they were previously. These results may also support the conclusion of Okey and Cusick (1995), who noted that "drinking, smoking, taking drugs, and running afoul of authority" (p. 263) are behaviours that youths learn from their parents. Several research-based studies have partially replicated these findings, showing that parental and adolescent substance abuse are positively related (e.g., Baumrind, 1985; Brook et al., 1990; Goodwin, 1985).

Neighbourhood and Community

The following information describes the neighbourhood and community characteristics associated with the 12 participants in the *Early School Leaving Study* (2001). The thrust of the analysis focuses on five broad categories: (a) household income of neighbourhoods, (b) availability of drugs, (c) availability of firearms, (d) portrayals of violence in the neighbourhood, and (e) known gang activity in neighbourhoods. This analysis was prompted by Peeples and Loeber (1994), who remarked that "individuals and families are only rarely studied in the context of their neighbourhoods" (p. 143). The data from the *Early School Leaving Study* (2001) indicated that the average household income in the participants' neighbourhoods ranged from $21,000 to $66,000. (The postal-code data for the participants' last official residence formed the unit of analysis for this investigation.) Analysis of the *Barriers Report* (2001) data showed that there were 21 comments relating to community-family issues. More specifically, the *Barriers Report* (2001) noted that low family income levels negatively affected students' chances for success. In general, the interview data from both studies supported the conclusion that children from low-income neighbourhoods are at higher risk for early school leaving. The weight of the evidence cited in the literature suggested that children from low-income census tracts and socially unstable neighbourhoods may be at higher risks for juvenile crime and other antisocial behaviour (e.g., Farrington et al., 1990; Lindström, 1996; Loeber & Farrington, 1998; Saner & Ellickson, 1996), low achievement (e.g., Barrett, 1997) and school failure (e.g., Apple, 1989; Brooks-Gunn et al., 1993; Connell et al., 1995; Ensminger et al., 1996; Radwanski, 1987; Stedman et al., 1988). Participants in the *Early School Leaving Study* (2001) were asked if drugs and firearms were easily attainable in their neighbourhoods. Incredibly, all 12 participants reported the easy availability of both. The findings from the *Barriers Report* (2001) partly supported those of the *Early School*

Leaving Study (2001). Easy acquisition of firearms and drugs forms a very real threat for the individual and society alike because availability is often associated with antisocial behaviour, including the use of violence and deadly force towards others (e.g., Hawkins, Catalano, & Miller, 1992; Loeber & Farrington, 1998; Potter & Mercy, 1997).

Additionally, three-quarters of the participants in the *Early School Leaving Study* (2001) came from neighbourhoods characterized by acts of violence, as reported by the media, prison personnel, or the participants themselves. Generally, violent neighbourhoods are highly populated and have high rates of juvenile crime and easy access to drugs and firearms (e.g., Fagan, 1988; Wilson & Herrnstein, 1985). The *Early School Leaving Study* (2001) also revealed a connection between the type of neighbourhood and the number of household moves. Those participants with more than eight household moves were also more likely to have resided in neighbourhoods portrayed as "violent." Finally, 8 participants in the *Early School Leaving Study* (2001) came from neighbourhoods where known gang activity was widespread. In conclusion, youths from poor, socially unstable, gang-infested, and unsafe neighbourhoods are likely at greater risk than other youths for school failure and delinquent activity.

Individual Characteristics

To achieve a more thorough understanding of early school leaving, both studies addressed the individual risk pathways to early school leaving and delinquency. The analysis focused on seven broad domains: (a) traumatic life events, (b) clinical depression, (c) early behaviour problems, (d) rebellious behaviours, (e) suicidal ideation, (f) anger problems, and (g) substance abuse. What follows describes information about these specific risk pathways. In the *Early School Leaving Study* (2001), 3 of the 12 participants had experienced at least one traumatic life event (i.e., the death of a family member or close friend). Consistent with previous research, the literature showed that young people who had experienced a traumatic or stressful life event, such as the death of a close family member, were at higher odds than other young people of dropping out of school (e.g., Alexander et al., 1997; Cormany, 1987; Oakland, 1992). Similarly, adolescents who had experienced a traumatic life event were more likely than other adolescents to be involved with the youth justice system (e.g., Garrison, 1983; Harris, 1983; Saner & Ellickson, 1996). The analysis of the *Barriers Report* (2001) noted that nine focus groups' comments dealt with students experiencing multiple problems. Specifically, the most powerful sub-theme in this category mentioned multiple problems such as poverty, family dysfunction, pregnancy, and health issues. Further, both studies supported the conclusion that at-risk students need coordinated and multiple supports.

The cross-case analysis of the *Early School Leaving Study* (2001) also revealed several other individual characteristics that may be associated with early school leaving. In particular, the interview data from the *Early School Leaving Study* (2001) revealed that most of the participants had experienced early and rebellious behaviour, besides having anger-management problems. Moreover, this study's findings support the conclusions from earlier studies that show behaviour problems, particularly aggressive behaviour, are constant over time. As did Okey and Cusick (1995) and Hartnagel and Krahn (1989), the *Early School Leaving Study* (2001) study found that its respondent group of dropouts had substance-abuse problems. Specifically, the *Early School Leaving Study* (2001) research findings indicated that two-thirds of the participants reported a history of substance abuse. Moreover, all 12 participants reported some experimentation with or occasional use of both alcohol

and illicit drugs. This study's results also supported the conclusions of the *Barriers Report* (2001). As mentioned earlier, ten focus groups from the *Barriers Report* (2001) raised the issue that drugs and alcohol seem to be easier to get at an earlier age than they were previously. In general, research suggested that youths who engage in such practices do so because of rebellious and non-conforming attitudes (e.g., Hawkins, Lishner, Catalano, & Howard, 1986; Segal, Huba, & Singer, 1980). An older study carried out by Stroup and Robins (1972) submitted that teenage drinking differentiated those who had quit school from those who had graduated from Grade 12. More recently, in a retrospective study of 162 Edmonton high school dropouts, Hartnagel and Krahn (1989) found that respectively, 64% and 38% of the respondents reported weekly alcohol and marijuana consumption. Subsequent research has also noted that teenage dropouts were more likely than their non-dropout counterparts to consume drugs and alcohol (e.g., Brennan & Anderson, 1990; Chavez, Edwards, & Oetting, 1989; Fagan & Pabon, 1990; Wichstrom, 1998).

The consequences of drug abuse are enormous, both individually and societally. Individual costs of substance abuse may include decreased cognitive functioning, academic achievement, and motivation (e.g., Block, Farnham, Braverman, & Noyes, 1990; Garnier, Stein, & Jacobs, 1997; Nathan, 1990; Windle & Blane, 1989). Other harmful effects of substance abuse are increased occurrences of mood disorders and the possible risk of early death (e.g., Hawkins et al., 1992; McWhirter, McWhirter, McWhirter, & McWhirter, 1993), particularly from suicide (e.g., Greenwald, Reznikoff, & Plutchik, 1994; Newcomb & Bentler, 1988). Research similarly indicated that adolescent substance abusers are more likely than other adolescents to be homeless (e.g., Windle, 1989), involved with the youth justice system (e.g., Raychaba, 1989; Saner & Ellickson, 1996; Uihlein, 1994), truant from school (e.g., Hawkins et al., 1992), and dropouts (e.g., Friedman, Glickman, & Utada, 1985; Garnier et al., 1997; Mensch & Kandel, 1988; Tidwell, 1988). Social problems related to substance abuse may include higher rates of juvenile crime (e.g., Barrett, Simpson, & Lehman, 1988; Hawkins et al., 1992) increased health-care costs, as well as addiction-service costs (e.g., Hawkins et al., 1992) and other social pathologies.

Companions

The interview data from the Early School Leaving Study (2001) reinforced the notion that early school leavers tended to have deviant peer group affiliations in addition to negative peer group affiliations. The interview data from the *Barriers Report* (2001) clearly supported that view, noting that "At-risk students were also described as often being involved in power struggles with other students as a means to improve their status and self-esteem" (p. 16). When the participants in the *Early School Leaving Study* (2001) were asked in an open-ended way if their companions had criminal records, a general pattern emerged. A notable outcome to this question was that all participants reported in the affirmative, with the range being from "some" friends to "90%." One-third of the participants in the *Early School Leaving Study* (2001) had associated with companions at least four years outside their age range, and half of the participants had companions involved in organized crime or gangs. This study's findings supported the relationship between gang involvement and delinquency, and also the argument that gang involvement is highly correlated with the propensity to leave school early. The interview data from the *Early School Leaving Study* (2001) also revealed that most of the participants had dropout friends. The *Early School Leaving Study* (2001) results supported the conclusion that dropouts tend to associate with other dropouts. This study's data also reinforced the conclusion that adolescent drug use and peer drug use are positively related. To what

extent school failure in the cohort is related to peer pressure is uncertain. However, previous research has strongly associated the two factors (e.g., Brook et al., 1990; Kandel & Andrews, 1987).

Number of Schools Attended and Suspensions

As noted previously, several participants in the *Early School Leaving Study* (2001) were highly mobile, had little stability in their lives, and had experienced several household moves. This pattern was replicated within the school setting. The findings from the *Early School Leaving Study* (2001) showed that the participants had attended an average of approximately six elementary and four secondary schools. Moreover, the data supported the research evidence pointing to a positive relationship between school mobility and dropping out (e.g., Alspaugh, 1999; Alspaugh & Harting, 1995; Rumberger & Larson, 1998; Worrell, 1997). The findings from the *Barriers Report* (2001) partly supported this view, noting that schools should provide more formalized and supported exit and entry points in the secondary education system; doing so would particularly benefit adult students, transient students, and early school leavers.

The participants in the *Early School Leaving Study* (2001) were asked to recall how many times they had been suspended from elementary school. Ten of the 12 participants reported at least one elementary school suspension, the range for the respondent group being from 0 to 25 or more. As might be expected, most of the participants in the *Early School Leaving Study* (2001) also experienced secondary school suspensions, the range being from 0 to 20 or more. These data reinforced the conclusion that being suspended from high school may be associated with dropping out. When the respondents from the *Early School Leaving Study* (2001) were asked in an open-ended way if they had attendance problems at high school, a general pattern emerged. A notable outcome to this question was that all participants reported, "Yes." These findings agreed with other studies noting the relationship between truancy and early school leaving (e.g., Altenbaugh et al., 1995; Gilbert et al., 1993; Tanner et al., 1995). The results from the *Barriers Report* (2001) suggested the need of program flexibility to reduce truancy. In particular, nine focus groups identified time issues as integral to reducing truancy. Further, the *Barriers Report* (2001) recommended a school start time of 9:00 or 9:30.

Participants in the *Early School Leaving Study* (2001) were asked directly if they had either dropped out or been expelled from school. Notably, one-third of the participants reported being expelled. Not surprisingly, a solid body of research evidence suggested a strong connection between school expulsion and dropping out (e.g., Dryfoos, 1990; Jordan et al., 1996; Orr, 1987). Obviously, the participants in the present study differed noticeably from the general profile of 16-to-18-year-olds in Canada. Interestingly, the 4 participants who had been expelled from school also had suffered emotional and physical abuse as children. These results generally supported the conclusion of the *Barriers Report* (2001), who noted that "Students at risk of leaving school early tend to be the most disenfranchised students in the schools while coping with complex problems in their lives" (p. 24). Further analysis in the *Early School Leaving Study* (2001) showed that these participants also had histories of parental rejection and came from neighbourhoods where known gang activity was prevalent. This finding suggests, but does not conclusively prove, that expelled students can be distinguished from other dropouts based on a host of other family background and personal variables.

Cognitive Ability

The following provides specific information concerning cognitive abilities and academic achievement potential. The analysis focuses on six broad domains including (a) remedial programs attended, (b) learning disabilities, (c) problems keeping up at school, (d) grades failed in elementary school, (e) reading grade level, and (f) level of instruction at high school.

Within the context of the school environment, one-half of the participants in the *Early School Leaving Study* (2001) attended remedial programs in the past. For this study, a "remedial program" was defined as "any modified instructional approach for students who have physical, intellectual or behavioural problems that limit their ability to do school work" (Lipps & Frank, 1997, p. 45). In a sample of 651 Wisconsin students, Barrington and Hendricks (1989) found a strong association between special education referrals in elementary school and prematurely leaving high school. Results indicated that 51% of the dropouts had been referred to special education services, as compared to 30% of the graduates. Given the findings summarised above, it is not surprising that one participant from the *Barriers Report* (2001) stated that "Early school leavers are shadows of learning disabilities" (p. 16). Based on data from the NLSCY (1995) study, one in ten Canadian children received some form of remedial education during the 1994-95 school year. Disaggregating the NLSCY (1995) data, Lipps and Frank (1997) noted that one-half of the children had been placed in remedial programs because of learning disabilities, while another one-quarter were there because of behavioural problems.

Participants in the *Early School Leaving Study* (2001) study were also asked if they were aware of any personal learning disabilities. Notably, one-half of the participants reported, "Yes." Some research evidence suggested support for the literature's assertions that students who have learning disabilities are more likely than other students to quit school (e.g., Will, 1986; Zabel & Zabel, 1996). Furthermore, IQ testing showed that, on the whole, the respondent group from the *Early School Leaving Study* (2001) were of "average" intelligence. These results generally supported the issues and observations of the *Barriers Report* (2001), which noted that a need for better approaches to diagnosing students. Another pattern which emerged from the *Early School Leaving Study* (2001) revealed that most participants had exceptionally low grades, especially in their last year of high school. The findings of the present study corresponded to a study completed almost 30 years ago (Bachman, Green, & Wirtanen, 1971). The importance of exploring academic performance was highlighted by Gilbert et al. (1993), who remarked that "academic performance is a key variable in the school leaving process" (p. 35). Supporting this position, Wagenaar (1987) suggested that academic performance is closely linked to early school leaving. Eight focus groups involved in the *Barriers Report* (2001) commented on a related theme, noting that "too often, students are given 'social passes' when they had not learned the curriculum for their grade level" (p. 17).

Other research suggested a connection between parental educational involvement and dropping out (Brennan & Anderson, 1990; Ekstrom et al., 1986; Hanson & Ginsburg, 1988; Rumberger et al., 1990). One participant of the *Barriers Report* (2001) expressed the views of the literature above, noting that "The only students I know still in school are those whose parents are directly involved in the child's life" (p. 23). As expected, many researchers provided ample evidence to illustrate the relationship between low academic performance, as indicated by low test scores and grades, and early school leaving (e.g., Altenbaugh et al., 1995; Garnier et al., 1997; Greenwood et al., 1992;

Jordan et al., 1996; Kaufman et al., 1992; Worrell, 1997). Further, the analysis of the *Barriers Report* (2001) noted that the most frequent sub-theme, raised in 13 focus groups, dealt with the importance of parental educational involvement.

Participants in the *Early School Leaving Study* (2001) were also asked if they had experienced problems keeping up at either elementary or high school. One-half of the participants recalled a variety of problems, and several had repeated or "flunked," as failing is pejoratively called, one or more grades during elementary school. In the present study, "grade retention" simply means nonpromotion to the next grade for any reason. Studies addressing the issue of retention empirically supported the assumption that, in general, the intervention is considered academically harmful and ineffective for many students (e.g., Grisson & Shepard, 1989; Jimerson et al., 1997; Shepard, 1989; Shepard & Smith, 1989, 1990), particularly in the upper grades (e.g., Kaufman & Bradby, 1992). For example, in an older study, Mann (1986) noted that "being retained one grade increases the risk of dropping out by 40-50 percent, two grades by 90 percent (p. 308). More recently, Goldschmidt and Wang (1999) also found that grade retention was highly correlated with the propensity to leave school early. Several other studies suggested support for the literature's assertions that children who were older than their peers, because of grade retention, were more likely to leave school early (e.g., Janosz et al., 1997; Kaufman et al., 1992; Radwanski, 1987; Spain & Sharp, 1990; Simmer & Barnes, 1991). However, the research was less clear on the underlying causal factors. For example, one report asked, "Did being retained in a grade or being overage increase the likelihood of such students dropping out or were these students who would have been more likely to drop out even if they had not been retained?" (NCES, 1996, p. 3).

In the *Early School Leaving Study* (2001), the Wide Range Achievement Test (WRAT) as a marker of cognitive pathology showed that reading ability varied considerably among the participants. The reliability and validity of this standardized achievement test have been repeatedly confirmed in theoretical and empirical research literature. Further, this IQ test is routinely used to measure a student's level of mastery in arithmetic and spelling. These data from the *Early School Leaving Study* (2001) illustrated that, when interviewed, the participants ranged in reading ability from 7.3 to 10.9 (the mean and median reading levels for the respondent group were 8.71 and 8.35, respectively). Several researchers have shown that deficits in reading ability may lead to early school leaving (e.g., Barrington & Hendricks, 1989; Bearden et al., 1989; Hahn, 1987; Schulz et al., 1986; Wehlage & Rutter, 1986). One focus group i[illegible]lved in the *Barriers Report* (2001) commented on a related theme, noting that improving stu[illegible]nts' self-knowledge of their reading levels was important. Further, participants in the *Early School Leaving Study* (2001) were asked which two subjects they disliked the most at school. In response, 8 participants reported English, and 7 reported mathematics as their least preferred subjects. This finding supported the work of Radwanski (1987), who noted that "The most problematic subjects for dropouts, by an overwhelming margin, appear to be mathematics and English" (p. 79). A consistent relationship between difficulties in math and English and early school leaving has been well documented in the literature (e.g., Gilbert et al., 1993; Sunter, 1993).

The participants in the *Early School Leaving Study* (2001) were also asked about their most recent level of instruction at high school. Overall, "level of instruction" is used to describe the level of difficulty of academic course work. Basic-level courses are designed for personal skills, social understanding, and preparation for employment. General-level courses are designed for entry into non-degree-

granting institutions such as community colleges. Advanced-level courses are designed for entry into university (Cornfield et al., 1987). For level of instruction, the participants' responses were organized into three nominal level categories: enrolled in the basic program of instruction, enrolled in the general program of instruction, or enrolled in the advanced program of instruction. Three participants said that before dropping out, they had been consigned to the basic level of instruction, 9 participants said they were taking courses at the general level, while no participants reported studying at the advanced level of instruction. The analysis of the *Barriers Report* (2001) noted that seven focus groups' comments dealt with the negative impact that labeling has on students' self-confidence. In particular, one participant expressed dissatisfaction with the perception of labeling and streaming for lower achieving students and suggested that better diagnosis and communication is needed. Although streaming may have valid educational objectives (e.g., Alexander, Entwisle, & Dauber, 1994), the predominant pattern in the research literature is quite clear: students enrolled in the basic and general programs of instruction are far more likely than their advanced counterparts to leave school early (e.g., Denton & Hunter, 1991; Frase, 1989; King, Warren, Michalski, & Peart, 1988; Quirouette et al., 1989; Radwanski, 1987).

School Behaviour Problems

Behavioural disorders among children in Canada are cause for concern. The data from *Early School Leaving Study* (2001) showed that just over one-half of the participants had experienced early behaviour problems in school. These findings supported the conclusion that early behaviour problems contribute to students quitting school. The data from the *Barriers Report* (2001) reinforced the conclusion that lack of academic success may also lead to behavioural problems. Specifically, the report noted that "Students' frustration with their lack of success can easily lead to confrontational relationships and power struggles with teachers and peers" (p. 24). The literature also showed that students who quit school were more apt than other students to exhibit disruptive behaviour in class, particularly early aggressive behaviour (e.g., Ensminger et al., 1996; Ensminger & Slusarcick, 1992). Within the context of school behaviour problems, most of the participants in the *Early School Leaving Study* (2001) also had a history of verbal and physical confrontations with teachers and students, respectively. In general, it may be cautiously concluded that youths who display either or both physical and verbal aggression in the school setting are more inclined than other youths to drop out of school. The results from both studies generally supported the research literature (e.g., Ensminger & Slusarcick, 1992; Kaufman et al., 1992).

Employment, Finances, High School Credits, and Future Plans

The interview data from *Early School Leaving Study* (2001) revealed that just over half of the participants reported working for pay while attending high school. These findings are not surprising given that roughly 60% of all Canadian students are employed at one time or another during their high school years (e.g., Bowlby & Jennings, 1999; Lawton, 1994). In particular, several participants reported working more than fifteen hours per week. This study's interview data and the research literature robustly supported the contention that working more than fifteen hours per week may contribute to early school leaving. Eighty-two percent of the focus groups involved in the *Barriers Report* (2001) commented on a related theme, noting the need to make schooling more relevant for trades-orientated students by improving the linkage between school and work. To find out if money played a part in the decision to drop out of school, several open-ended questions were asked relating to this theme. Overall, just under half of the participants in the *Early School Leaving Study* (2001)

noted that economic reasons had very little or no effect on their decision to quit school. In contrast, 7 participants reported that financial reasons played a notable role in their decisions to drop out. Several research-based studies have partially replicated these findings, showing that financial problems are indeed associated with early school leaving.

One of the *Early School Leaving Study's* (2001) positive aspects was that all the participants acknowledged the desire to return to school. The *Barriers Report* (2001) reached the same conclusion, reporting that "many early school leavers remain committed to the value of education and intend on returning to school one day if the required supports are available" (p. 4). Likewise, Berktold, Geis, and Kaufman's (1998) study using data from the 1988 National Educational Longitudinal Study and its 1994 follow-up study found that 50% of the early school leavers ultimately completed high school. Two observations can be presented based on the "dropback" literature and this study's findings. First, the dropout rate for young offenders and others may be deceptively high if estimates are derived exclusively from studies employing retrospective or cross-sectional research designs. Second, because the participants seemed to recognize the importance of further education, their current dropout status may be only temporary. Frank (1996a), in reviewing data from the School Leavers Follow-Up Survey, presented yet another viewpoint, remarking that "for some, finishing high school is a longer process than it is for others" (p. 3).

RECOMMENDATIONS

The following recommendations, organized into two sections, are a synthesis based on the findings and conclusions of both studies, the research literature, and the researcher's experience. The first section, organized to reflect limited resources, offers recommendations for practice while the final section concludes with six recommendations for further research.

Recommendations for Practice

1. The early school leavers in both studies had almost never been involved in extracurricular activities such as athletic teams and clubs. In general, it has been reported in the research literature that participation in extracurricular activities significantly reduces the likelihood of young people leaving school early. The *Barriers Report* (2001) reached a similar conclusion, noting that "Extracurricular involvement of students was frequently cited as an important way of connecting students to the life of the school" (p. 16). Accordingly, it is recommended that schools systematically examine their extracurricular programs and develop procedures that encourage the participation of all students, particularly at-risk youths. For example, school personnel should explore the idea of accommodating students during their "spare" or free periods. Further, orientation activities should be carried out at various times throughout the school year in order to assist transfer students.

2. Schools should encourage programs to improve communication between students and teachers. Specifically, students identified as being at risk of prematurely leaving school should be assigned a teacher-advisor to discuss academic matters and other non-school related issues. The *Barriers Report* (2001) observed that a teacher-advisor program had worked well in one Alberta community. Further, the schools should also encourage programs that try to involve parents in their child's education. These programs are particularly important for dysfunctional, low-income, and single-parent families.

3. Despite dropping out of school, all 12 participants in the *Early School Leaving Study* (2001) expressed the desire to continue their education. Echoing this findings, the *Barriers Report* (2001) noted that "many early school leavers remain committed to the value of education and intend on returning to school one day if the required supports are available" (p. 4). In view of these finding, it is recommended that school jurisdictions establish policies and procedures that will facilitate the reentry of dropouts into the educational system. Providing nontraditional educational programs or schools geared towards independent, adult, and mastery learning would be beneficial. For example, Ecole George Vanier located in Montreal, Quebec; Project Excellence located in Cochrane, Ontario; and Bishop Carroll High School located in Calgary, Alberta continue to offer innovative alternatives to the rigid lock-step system of conventional schools.

4. All the participants in *Early School Leaving Study* (2001) and several participants in the *Barriers Report* (2001) had been referred by provincial youth court judges to a term of secure custody and, in general, the participants represented a risk to either the community or themselves. Most of these youths were recidivists with lengthy and violent criminal records. Given the findings summarised above, it is not surprising that the *Barriers Report* (2001) noted that "Providing a safe and caring school culture for students is an active priority for all schools" (p. ii). When schools deal with individuals similar to the participants in these two studies, it is recommended that the

schools establish close working relationships with the youth justice system in general and the police in particular. Further, a negotiated contract between the school and the young offender should be considered upon his or her reentry into the educational system. It is further recommended that schools establish a clear set of student behaviour rules that are enforced fairly and consistently among all students. That is, these rules should not be different from those that the general school population follow.

5. The participants in the *Early School Leaving Study* (2001) study were highly mobile, had little stability in their lives, and had experienced several household and school moves. Studies (e.g., Alspaugh, 1999; Alspaugh & Harting, 1995; Rumberger & Larson, 1998; Worrell, 1997) showed that mobility is highly correlated with the propensity to leave school early. Consequently, schools should target these transient individuals and set up programs that encourage engagement and social belonging. For instance, schools may consider establishing peer assistance, tutoring, and counselling programs. These programs would consist of volunteer students who would offer assistance to fellow students. Schools would provide some training for these volunteer students and match them with at-risk individuals having similar hobbies and interests.

6. In order to benefit troubled youth, learning environments need to be flexible, social, personalized, and relevant. The suggested outcomes from the *Barriers Report* (2001) partly supported this view, noting that "Through greater choice, students have more relevant program options that better meet their needs" (p. ii). In addition, class sizes should be relatively small, and the curriculum should reflect a balance between academic and technical courses. Consistent with this statement, 9 focus groups from the *Barriers Report* (2001) raised the issue "of the need for increased funding to reduce class size as a means to provide more individual attention to at-risk students" (p. 20). To increase the chances for academic success, programs also need to address conditions of the individuals' lives beyond school. For example, students with behavioural or substance-abuse problems may require specialized programming such as anger management or drug and alcohol counselling. It is also recommended that schools receive sufficient financial funding to ensure that appropriate student supports are available to those who need them.

7. Many early school leavers in both studies had been employed during high school. In particular, the *Early School Leaving Study* (2001) found that employment during high school may be related to academic disengagement and early school leaving. It is recommended that schools take a pro-active role in discouraging students from working more than fifteen hours per week. Federal and provincial government legislation could address this issue. It is also recommended that school efforts be made to inform parents and employers about the detrimental effects of excessive hours worked during the school week. Further, eight focus groups from the *Barriers Report* (2001) recommended that assistance with career planning be implemented. Secondary schools may want to establish policies and procedures to address the concerns noted above.

8. Finally, disadvantaged and at-risk children need to be identified early in their academic careers and provided with support, guidance, and counselling in order to ensure their early success. More specifically, a program to ensure counselling following marital separation or divorce is strongly advised. It is recommended that the schools be responsible for these programs. Although additional resources would be needed to implement these recommendations, the investment may save the "public sector dollars in the long run" (p. 32, *Barriers Report*, 2001) When required, the schools should also arrange for psychologists, psychiatrists, and physicians

to deal with students' personal problems. Continued monitoring of at-risk children as they progress through the elementary and secondary school systems is also recommended.

Recommendations for Further Research

1. For tracking, accounting, and research purposes, the federal, provincial, and territorial governments should consider working together to establish a nationwide student-record data base for early school leavers. It is further recommended that each school board in the country receive a regular listing of the names of students in its jurisdiction who have quit school. Improving accounting and tracking procedures has generally proven effective in lowering dropout rates because follow-up activities can be implemented only after school leavers have been identified (Oakland, 1992). The findings from the *Barriers Report* (2001) partly supported this view, noting that a tracking system would "provide the ability to confirm what program supports are working and where resources might be better allocated over time" (p. 32).
2. The findings of both studies justify additional research into the youth justice system. In particular, it is recommended that research be conducted that seeks to distinguish dropouts from nondropouts within the youth justice system.
3. The results of both studies suggest the need for a prospective longitudinal study that includes family background, as well as personal, school, and criminal characteristics related to early school leaving. It is further recommended that researchers study the young offenders who eventually graduate from school.
4. The literature (e.g., Foster et al., 1994) suggested that early school leaving should be analyzed from several perspectives by using dissimilar populations. Given that the *Early School Leaving Study* (2001) focussed on male young offenders, it is recommended that this study should be replicated with a female group of young offenders. Analyzing early school leaving from this perspective will supply researchers with information about a topic that has received little scholarly attention. Researchers may also wish to study the differences between male and female dropouts.
5. Due to the purposive sampling techniques, the results from this study cannot be generalized beyond the participants under study. Therefore, it is recommended that both studies be replicated with a larger, representative sample to determine the results' generalizablility.
6. A problem encountered when studying both early school leaving and youth deviance is determining the possible causal relationship. Therefore, it is recommended that researchers study this relationship more thoroughly.

REFERENCES

Alberta Advanced Education Career and Development (1993). *The school leavers survey: Summary of Alberta results.* Edmonton, AB: Author.

Alexander, K.L., Entwisle, D.R., & Dauber, S.L. (1994). *On the success of failure: A reassessment of the effects of retention in the primary grades.* New York: Cambridge University Press.

Alexander, K.L., Entwisle, D.R., & Horsey, C.S. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education, 70*(2), 87-107.

Alpert, G., & Dunham, R. (1986). Keeping academically marginal youths in school: A prediction model. *Youth and Society, 17*(4), 346-361.

Alspaugh, J.W. (1999). The relationship of school-to-school transitions and school size to high school dropout rates. *High School Journal, 81*(3), 154-160.

Alspaugh, J.W., & Harting, R.D. (1995). Transition effects of school grade level organization on student achievement. *Journal of Research and Development, 28*(3), 145-149.

Altenbaugh, R.J., Engel, D.E., & Martin, D.T. (1995). *Caring for kids: A critical study of urban school leavers.* Washington, DC: The Falmer Press.

Anderson, D.K. (1993). Adolescent mothers drop out. *American Sociological Review, 58*(5), 735-738.

Andrew, J. (1976). Delinquency, sex, and family variables. *Social Biology, 23*(2), 168-171.

Anisef, P., & Johnson, L. (1993). *The young adult learner: Fifteen to eighteen year old students in the Ontario English-language school system* (Vol. 1-2). Toronto, ON: Queen's Printer for Ontario.

Apple, M.W. (1989). American Realities: Poverty, economy and education. In L. Weiss, E. Farrar, & H. Petrie (Eds.), *Dropouts from school: Issues, dilemmas and solutions* (pp. 205-225). New York: State University of New York Press.

Astone, N.M., & McLanahan, S.S. (1991). Family structure, parental practices and high school completion. *American Sociological Review, 56*(3), 309-320.

Astone, N.M., & McLanahan, S.S. (1994). Family structure, residential mobility, and school dropout: A research note. *Demography, 31*(4), 575-584.

Attles, H.S.E. (1993). A study of the effects of homelessness upon the academic achievement of elementary school-age children. *Dissertation Abstracts International, 54*(06). (University Microfilms No. AAC93-29560).

Bachman, J.G., Green, S., & Wirtanen, I.D. (1971). *Dropping out: Problems or symptom? Youth in transition* (Vol. III). Ann Arbor, MI: The University of Michigan, Institute for Social Research.

Barber, L.W., & McCLellan, M.C. (1987). Looking at America's Dropouts: Who are they? *Phi Delta Kappan, 69*(4), 264-267.

Barrett, M.E., Simpson, D.D., & Lehman, W.E.K. (1988). Behavioral changes of adolescents in drug abuse intervention programs. *Journal of Clinical Psychology, 44*(3), 461-473.

Barrett, T. (1997). *Schools in wealthier neighbourhoods do better.* [On-line] *The Edmonton Journal.* Available: http://www.edmontonjournal.com/archives/091897tests4. html.

Barrington, B.L., & Hendricks, B.H. (1989). Differentiating characteristics of high school graduates, dropouts, and nongraduates. *The Journal of Educational Research, 82*(6), 309-319.

Barton, P. (1989). *Earning and learning: The academic achievement of high school juniors with jobs.* Princeton, N.J: Educational Testing Service.

Baumrind, D. (1985). Familial antecedents of adolescent drug use: A developmental perspective. In C.L. Jones & R.J. Battjes (Eds.), *Etiology of drug abuse: Implications for prevention* (pp. 13-44). Washington, DC: U.S. Government Printing Office.

Bean, F., & Tienda, M. (1990). *The Hispanic population of the United States.* New York: Sage.

Bearden, L.J., Spencer, W.A., & Moracco, J.C. (1989). A study of high school dropouts. *The School Counselor, 37*(2), 113-120.

Bell, R., Conrad, E.H., & Suppa, R.J. (1984). The findings and recommendations of the national study on learning deficiencies in adult inmates. *Journal of Correctional Education, 35*(4), 129-136.

Bell-Rowbotham, B., & Boydell, C.L. (1972). Crime in Canada: A distributional analysis. In C.L. Boydell, C.F. Grindstaff, & P.C. Whitehead (Eds.), *Deviant behaviour and societal reaction* (pp. 93-116). Toronto, ON: Holt, Rinehart & Winston.

Berktold, J., Geis, S., & Kaufman, P. (1998). *Subsequent educational attainment of high school dropouts. Postsecondary education descriptive analysis reports. Statistical analysis report.* Washington, DC: Center for Education Statistics (OERI/ED). (ERIC Document Reproduction Service No. ED 419 900)

Bickel, R., & Papagiannis, G. (1988). Post-high school prospects and district-level dropout rates. *Youth & Society, 20*(2), 123-147.

Bierman, K.L., Smoot, D.L., & Aumiller, K.A. (1993). Characteristics of aggressive-rejected, aggressive (nonrejected), and rejected (nonaggressive) boys. *Child Development, 64*(1), 139-151.

Binkley, E.M., & Hooper, R.W. (1989). *Statistical profiles of students who dropped out of high school during the school year 1987-1988.* Nashville, TN: Davidson County Metropolitan Public Schools. (ERIC Document Reproduction Service No. ED 311 575)

Birch, S.H., & Ladd, G.W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61-79.

Blau, P.M., & Duncan, O.D. (1967). *The American Occupational Structure.* New York: Wiley.

Block, R.I., Farnham, S., Braverman, K., & Noyes, R. (1990). Long-term marijuana use and subsequent effects on learning and cognitive functions related to school achievement: Preliminary study. *National Institute on Drug Abuse Research Monograph Series, 101*, 96-111.

Blum, M.H., Boyle, M.H., & Offord, D.R. (1988). Single-parent families: Child psychiatric disorders and school performance. *Journal of the American Academy of Child and Adolescent Psychiatry, 27*(2), 214-219.

Bowditch, C. (1993). Getting rid of troublemakers: High school disciplinary procedures and the production of dropouts. *Social Problems, 40*(4), 493-509.

Bowlby, G., & Jennings, P. (1999). Youth employment: A lesson on its decline. (Statistics Canada, Catalogue No. 81-003-XIB-Quarterly). *Education Quarterly Review, 5*(3), 36-42.

Brady, P. (1996). Native dropouts and non-native dropouts in Canada: Two solitudes or a solitude shared? *Journal of American Indian Education, 35*(2), 10-20.

Bray, J.W., Zarkin, G.A., Ringwalt, C., & Qi, J. (2000). The relationship between marijuana initiation and dropping out of high school. *Health Economics, 9*(1), 9-18.

Brennan, T., & Anderson, F. (1990). *A longitudinal study of factors producing high school dropout among handicapped and non-handicapped students.* Nederland, CO: Institutional Development and Economic Affairs Service. (ERIC Document Reproduction Service No. ED 334 762)

Brook, J.S., Brook, D.W., Gordon, A.S., Whiteman, M., & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. *Genetic, Social, and General Psychology Monographs, 116*(2), 111-267.

Brooks-Gunn, J., Duncan, G.J., Klebanov, P.K., & Sealand, N. (1993). Do neighbourhoods influence child and adolescent development? *American Journal of Sociology, 99*(2), 353-395.

Brown, B.B. (1990). Peer groups and peer cultures. In S.S. Feldman & G.R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 171-195). Cambridge MA: Harvard University Press.

Brownfield, D., & Sorenson, A.M. (1993). Self-control and juvenile delinquency: Theoretical issues and an empirical assessment of selected elements of a general theory of crime. *Deviant Behavior, 14*(3), 243-264.

Brownfield, D., & Sorenson, A.M. (1994). Sibship size and sibling delinquency. *Deviant Behavior, 15*(1), 45-61.

Bruno, J.E., & Isken, J.O. (1996). Inter and intraschool site student transiency: Practical and theoretical implications for instructional continuity at inner city schools. *Journal of Research and Development in Education, 29*(4), 239-252.

Bryk, A.S., & Thum, Y.M. (1989). The effects of high school organization on dropping out: An exploratory investigation. *American Educational Research Journal, 26*(3), 353-383.

Butlin, G. (1999). Determinants of postsecondary participation. (Statistics Canada, Catalogue No. 81-003-XIB-Quarterly). *Education Quarterly Review, 5*(3), 9-35.

Cairns, R.B., Cairns, B.D., & Neckerman, H.J. (1989a). Early school dropout: Configurations and determinants. *Child Development, 60*(6), 1437-1452.

Cairns, R.B., Cairns, B.D., & Neckerman, H.J., Fergusson, L.L., & Gariépy, J.L. (1989b). Growth and aggression: I. Childhood to early adolescence. *Developmental Psychology, 25*(2), 320-330.

Calabrese, R.L., & Poe, J. (1990). Alienation: An explanation of high dropout rates among African American and Latin students. *Educational Research Quarterly, 14*(4), 22-26.

Carr, R.V., Wright, J.D., & Brody, C.J. (1996). Effects of high school work experience a decade later: Evidence from the national longitudinal survey. *Sociology of Education, 69*(1), 66-81.

Cato, J. (1988). *Youth in crisis.* Vancouver, BC: EduServ.

Catterall, J.S. (1988). *Dropping out of school in the north central region of the United States: Costs and consequences. Success for students at risk.* Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Services No. ED 327 622)

Cervantes, L. (1965). *The dropout: Causes and cures.* Ann Arbor, MI: University of Michigan Press.

Chavez, E.L., Edwards, R., & Oetting, E.R. (1989). Mexican American and White American school dropouts' drug use, health status, and involvement in violence. *Public Health Reports, 104*(6), 594-604.

Chong-Bum, A., Haveman, R., Wolfe, B. (1991). *Teen out-of-wedlock births and welfare receipt: The role of childhood events and economic circumstances.* Madison, WI: Institute for Research on Poverty Discussion Paper No. 944-91. (ERIC Document Reproduction Service No. ED 380 528)

Claes, M., & Simard, R. (1992). Friendship characteristics of delinquent adolescents. *International Journal of Adolescence and Youth, 3*(3-4), 287-301.

Coleman, J.S., & Hoffer, T. (1987). *Public and private high schools: The impact of communities.*

New York: Basic Books.

Coleman, P. (1993). Testing the school system: Dropouts, accountability, and social policy. *Curriculum Inquiry, 23*(3), 329-342.

Colombo, J.R. (1998). *The 1999 Canadian global almanac.* Toronto, ON: Macmillan Canada.

Connell, J.P., Halpern-Felsher, B.L., Clifford, E., Crichlow, W., & Usinger, P. (1995). Hanging in there: Behavioral, psychological, and contextual factors affecting whether African-American adolescents stay in high school. *Journal of Adolescent Research, 10*(1), 41-63.

Connell, R.W. (1994). Poverty and Education. *Harvard Educational Review, 64*(2), 125-149.

Connolly, J.A., Hatchette, V., & McMaster, L.E. (1998). *School achievement of Canadian boys and girls in early adolescence: Links with personal attitudes and parental and teacher support for school.* (Working Papers No. W-98-14E). Hull, PQ: Applied Research Branch, Strategic Policy: Human Resources Development Canada.

Connolly, J.A., Hatchette, V., & McMaster, L.E. (1999). Academic achievement in early adolescence: Do school attitudes make a difference? (Statistics Canada, Catalogue No. 81-003-XIB-Quarterly). *Education Quarterly Review, 6*(1), 34-40.

Cormany, R.B. (1987). Project CARE: A response to students at risk. *NASSP Bulletins, 71*(449), 35-38.

Cornfield, R.J., Coyle, K., Durrant, B., McCutcheon, K., Pollard, J., & Stratton, W. (1987). *Making the grade: Evaluating student progress.* Scarborough, ON: Prentice-Hall Canada Inc.

Cottle, T.J. (1975). Case of suspensions. *National Elementary Principal, 55*(1), 4-9.

Crain, R.L., Mahard, R.E., & Narat, R.E. (1982). *Making desegregation work: How schools create social climates.* Cambridge, MA: Ballinger.

Curtis, B., Livingston, D.W., & Smaller, H. (1992). *Stacking the deck: The streaming of working-class kids in Ontario schools.* Toronto, ON: Our Schools/ Our Selves Education Foundation.

Dauber, S.L., Alexander, K.L., & Entwisle, D.R. (1993). Characteristics of retainees and early precursors of retention in grade: Who is held back? *Merrill-Palmer Quarterly, 39*(3), 326-343.

Davalos, D.B., Chavez, E.L., & Guardiola, R.J. (1999). The effects of extracurricular activity, ethnic identification, and perception of school on student dropout rates. *Hispanic Journal of Behavioral Sciences, 21*(1), 61-77.

Davies, S. (1994). In search of resistance and rebellion among high school dropouts. *The Canadian Journal of Sociology, 19*(3), 331-350.

deBettencourt, L.U., & Zigmond, N. (1990). The learning disabled secondary school dropout: What teachers should know. What teachers can do. *Teacher Education and Special Education, 13*(1), 17-20.

de Brouker, P., & Lavallée, E. (1998). Getting ahead in life: Does your parents' education count. (Statistics Canada, Catalogue No. 81-003-XIB-Quarterly). *Education Quarterly Review, 5*(1), 34-40.

DeBlois, R. (1989). Keeping at-risk students in school: Toward a curriculum for potential dropouts. *NASSP Bulletin, 73*(516), 6-12.

Delgado-Gaitan, C., & Trueba, H. (1991). *Crossing cultural borders: Education for immigrant families in America.* New York: The Falmer Press.

Denton, M., & Hunter, A.A. (1991). Education and the child. In R. Barnhorst & L.C. Johnson (Eds.), *The state of the child in Ontario* (pp. 117-138). Toronto, ON: Oxford University Press.

DeRidder, L.M. (1990). The impact of school suspensions and expulsions on dropping out. *Educational Horizons, 68*(3), 153-157.

Dodge, K.A., Pettit, G.S., & Bates, J.E. (1994). Socialization mediators of the relation between socioeconomic status and child conduct problems. *Child Development, 65*(2), 649-665.

Doherty, W.J., & Needle, R.H. (1991). Psychological adjustment and substance use among adolescents before and after a parental divorce. *Child Development, 62*(2), 328-337.

Dornbusch, S.M., Carlsmith, J.M., Bushwall, S.J., Ritter, P.L., Leiderman, H., Hastorf, A.H., & Gross, R.T. (1985). Single parents, extended households and the control of adolescents. *Child Development, 56*(2), 326-341.

Dornbusch, S.M., Ritter, P.L., Leiderman, P.H., Roberts, D.F., et al. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*(5), 1244-1257.

Dornbusch, S.M., Ritter, P.L., & Steinberg, L. (1991). Community influences on the relation of family statuses to adolescent school performance: Differences between African-Americans and Non-Hispanic Whites. *American Journal of Education, 99*(4), 543-567.

Dryfoos, J.G. (1990). *Adolescents at risk: Prevalence and Prevention.* New York: Oxford University Press.

Duncan, G.J., Brooks-Gunn, J., Klebanov, P.K. (1994). Economic deprivation and early childhood development. *Child Development, 65*(2), 296-318.

Dunham, R., & Alpert, G. (1987). Keeping juvenile delinquents in school: A prediction model. *Adolescence, 22*(85), 45-57.

Durksen, P. (1994). The drop-out rate is not 25-33%. *The Canadian School Executive, 13*(10), 16-18.

Eckenrode, J., Laird, M., & Doris, J. (1993). School performance and disciplinary problems among abused and neglected children. *Developmental Psychology, 29*(1), 53-62.

Edmonton Public Schools. (1988). *Early school leavers: A review of the literature* (D. Armstrong, Chair). Edmonton, AB: Author.

Edmonton Public Schools. (1996). *Early school leavers longitudinal study: 1995.* Edmonton, AB: Author.

Educational Testing Service. (1995). *Dreams deferred: High school dropouts in United States.* Princeton, NJ: Author.

Ekstrom, R.B., Goertz, M.E., Pollack, J.M., & Rock, D.A. (1986). Who drops out of high school and why? Findings from a national study. *Teachers College Record, 87*(3), 356-373.

Ellenbogen, S., & Chamberland, C. (1997). The peer relations of dropouts: A comparative study of at-risk and not at-risk youths. *Journal of Adolescence, 20*(4), 355-367.

Ellickson, P., Bui, K., Bell, R., & McGuigan, K.A. (1998). Does early drug use increase the risk of dropping out of high school? *Journal of Drug Issues, 28*(2), 357-380.

Elliott, D.S., Wilson, W.J., Huizinga, D., Sampson, R.J., Elliott, A., & Rankin, B. (1996). The effects of neighborhood disadvantage on adolescent development. *Journal of Research in Crime and Delinquency, 33*(4), 389-426.

Employment and Immigration Canada. (1990a). *Good jobs, bad jobs: Employment in the service economy.* Ottawa, ON: Ministry of Supply and Services Canada.

Employment and Immigration Canada. (1990b). *A national stay-in-school initiative.* Ottawa, ON: Ministry of Supply and Services Canada.

Ensminger, M.E., & Slusarcick, A.L. (1992). Paths to high school graduation or dropout: A longitudinal study of a first grade cohort. *Sociology of Education, 65*(2), 95-113.

Ensminger, M.E., Lamkin, R.P., & Jacobson, N. (1996). School leaving: A longitudinal perspective including neighbourhood effects. *Child Development, 67*(5), 2400-2416.

Epstein, J.L. (1983). School environment and student friendships: Issues, implications, and interventions. In J.L. Epstein & N.L. Karweit (Eds.), *Friends in school* (pp. 235-253). New York: Academic Press.

Fagan, J., & Pabon, E. (1990). Contributions of delinquency and substance use to school dropout among inner-city youths. *Youth & Society, 21*(3), 306-354.

Fagan, J., Piper, E., & Moore, M. (1986). Violent delinquents and urban youths. *Criminology, 24*(3), 439-466.

Fagan, J., & Wexler, S. (1987). Family origins of violent delinquents. *Criminology, 25*(3), 643-669.

Farmer, E.M.Z. (1995). Extremity of externalising behavior and young adult outcomes. *Journal of Child Psychology and Psychiatry, 36*(4), 617-632.

Farrell, E. (1990). *Hanging in and dropping out.* New York: Teachers College Press.

Farrell, E., Peguero, G., Lindsey, R., & White, R. (1988). Giving voice to high school students: Pressure and boredom, ya know what I'm sayin? *American Educational Research Journal, 25*(4), 489-502.

Farrington, D.P., Loeber, R., Elliott, D.S., Hawkins, J.D., Kandel, D.B., Klein, M.W., McCord, J., Rowe, D.C., & Tremblay, R.E. (1990). Advancing knowledge about the onset of delinquency and crime. In B.B. Lahey & A.E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 13, pp. 283-342). New York: Plenum Press.

Fehrmann, P., Keith, T., & Reimers, T. (1987). Home influences on school learning: Direct and indirect effects of parental involvement on high school grades. *Journal of Educational Research, 80*(6), 330-370.

Fergusson, D.M. & Horwood, L.J. (1998). Early conduct problems and later life opportunities. *Journal of Child Psychology and Psychiatry, 39*(8), 1097-1108.

Fergusson, D.M., & Lynskey, M.T. (1998). Conduct problems in childhood and psychosocial outcomes in young adulthood: A prospective study. *Journal of Emotional and Behavioral Disorders, 6*(1), 2-18.

Fetler, M. (1989). School dropout rates, academic performance, size and poverty: Correlates of educational reform. *Educational Evaluation and Policy Analysis, 11*(2), 109-116.

Figueira-McDonough, J. (1993). Residence, dropping put, and delinquency rates. *Deviant Behavior, 14*(3), 109-132.

Finan, G.K. (1991). *Relationship of parent, peer and school factors to the retention of at risk youth.* Unpublished doctoral dissertation, University of Auburn, Auburn, AL.

Fine, M. (1986). Why urban adolescents drop into and out of public high school. *Teachers College Record, 87*(3), 393-409.

Fine, M. (1991). *Framing dropouts: Notes on the politics of an urban public high school.* Albany, NY: Sunny Press.

Fine, S. (1995, April 1). Youths in custody: High cost with no guarantees. *The Globe & Mail,* p. A1.

Finn, J.D. (1989). Withdrawing from school. *Review of Educational Research, 59*(2), 117-142.

Finn, J.D. (1993). *School engagement and students at risk.* Washington, DC: National Center for Education Statistics.

Fitzpatrick, K.M., & Yoels, W.C. (1992). Policy, school structure and sociodemographic effects on statewide high school dropout rates. *Sociology of Education, 65*(1), 76-93.

Foster, S., Tilleczek, K., Hein, C., & Lewko, J. (1994). High school dropouts. In P. Anisef (Ed.), *Learning and sociological profiles of Canadian high school students: An overview of 15 to 18 year olds and educational policy implications for dropouts, exceptional students, employed students, immigrant students, and Native youth* (pp. 105-119). Queenston, ON: The Edwin Mellen Press.

Frank, J. (1996a). *After high school: The first years. The first report of the school leavers follow-up survey, 1995.* Human Resources Development Canada. Ottawa: ON. Statistics Canada.

Frank, J. (1996b). After high school...initial results of the school leavers follow-up survey, 1995. (Statistics Canada, Catalogue No. 81-003- XPB). *Education Quarterly Review, 3*(4), 10-22.

Frank, J.R. (1987). *Income, family stressors, and parent education as correlates of school dropout.* Unpublished doctoral dissertation, The University of Texas at Austin, Austin, TX.

Frank, J.R. (1990). High school dropout: A new look at family variables. *Social Work in Education, 13*(1), 34-47.

Frase, M.J. (1989). *Dropout rates in the United States: 1988 analysis report* (DOE Publication No. NCES-89-6090). Washington, DC: National Center for Educational Statistics. (ERIC Document Reproduction Service No. ED 313 947)

Friedman, A.S., Glickman, N., & Utada, A. (1985). Does drug and alcohol use lead to failure to graduate from high school? *Journal of Drug Education, 15*(4), 353-364.

Galt, V. (2000). Canadians pursuing higher education in record numbers. *Education Reporter,* February 22.

Gamoran, A., & Mare, R.D. (1989). Secondary school tracking and educational inequality: Compensation, reinforcement or neutrality? *American Journal of Sociology, 94*(5), 1146-1183.

Garner, C.L., & Raudenbush, S.W. (1991). Neighborhood effects on educational

attainment: A multilevel analysis. *Sociology of Education, 64*(4), 251-262.

Garnier, H.E., Stein, J.A., & Jacobs, J.K. (1997). The process of dropping out of high school: A 19-year perspective. *American Educational Research Journal, 34*(2), 395-419.

Garrison, D.R. (1983). Psychosocial correlates of dropout and achievement in an adult high school completion program. *The Alberta Journal of Educational Research, 29*(2), 131-139.

Gastright, J.F., & Ahmad, Z. (1988). *Dropout causes and characteristics: Do local findings confirm national data?* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Services No. ED 293 968)

Gerics, J., & Westheimer, M. (1988). Dropout prevention: Trinkets and gimmicks or Deweyan reconstruction. *Teachers College Record, 90*(1), 41-60.

Gilbert, S. (1993). Labour market outcomes for high school leavers. (Statistics Canada, Catalogue No. 75-001-E). *Perspectives on labour and income, 5*(4), 12-16.

Gilbert, S. (1994). Predicting school leavers and graduates. (Statistics Canada, Catalogue No. 81-003). *Education Quarterly Review, 1*(2), 57-62.

Gilbert, S., Barr, W., Clark, M., Blue, M., & Sunter, D. (1993). *Leaving school: Results from a national survey comparing school leavers and high school graduates 18 to 20 years of age.* Ottawa: ON. Statistics Canada and Human Resources and Labour Canada.

Giordano, P.C., Cernkovich, S.A., & Pugh, M.D. (1986). Friendships and delinquency. *American Journal of Sociology, 91*(5), 1170-1202.

Goldschmidt, P., & Wang, J. (1999). When can schools affect dropout behavior? A longitudinal multilevel analysis. *American Educational Research Journal, 36*(4), 715-738.

Gonzalez, M.L. (1991). School-community partnerships and the homeless. *Educational Leadership, 49*(1), 23-24.

Goodwin, D.W. (1985). Alcoholism and genetics: The sins of the fathers. *Archives of General Psychiatry, 42*(2), 171-174.

Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime.* Stanford, CA: Stanford University Press.

Gough, P.B. (1991). A view from the outside. *Phi Delta Kappan, 74*(4), 669.

Gove, W.R., & Crutchfield, R.D. (1982). The family and juvenile delinquency. *Sociology Quarterly, 23*(3), 301-319.

Green, D.L. (1990). High school student employment in social context: Adolescents'

perceptions of the role of part-time work. *Adolescence, 25*(98), 425-434.

Greenberger, E. & Steinberg, L.D. (1981). The workplace as a context for the socialization of youth. *Journal of Youth and Adolescence, 10*(3), 185-210.

Greenwald, D.J., Reznikoff, M., & Plutchik, R. (1994). Suicide risk and violence in alcoholics: Predictions of aggressive risk. *The Journal of Nervous and Mental Disease, 182*(1), 3-8.

Greenwood, C.R., Carta, J.J., Hart, B., Kamps, D., Terry, B., Arreaga-Mayer, C., Atwater, J., Walker, D., & Risley, T. (1992). Out of the laboratory and into the community: 26 years of applied behavior analysis at the Juniper Gardens Children's Project. *American Psychologist, 47*(11), 1464-1474.

Grisson, J.B., & Shepard, L.A. (1989). Repeating and dropping out of school. In L.A. Shepard & M.L. Smith (Eds.), *Flunking grades: Research and policies on retention* (pp. 34-63). New York: The Falmer Press.

Grossnickle, D.R. (1986). *High school dropouts: Causes, consequences, and cure.* Bloomington, IN: Phi Delta Kappa Educational Foundation. (ERIC Document Reproduction Services No. ED 275 943)

Guagliardo, M.F., Huang, Z., Hicks, J., D'Angelo, L. (1998). Increased drug use among old-for-age and dropout urban adolescents. *American Journal of Preventive Medicine, 15*(1), 42-48.

Guppy, N., & Davies, S. (1998). *Education in Canada: Recent trends and future challenges.* (Statistics Canada, Catalogue No. 96-321-MPE No. 3). Ottawa, ON: Minister of Industry.

Haberman, M., & Quinn, L. (1986). The high school reentry myth: A follow-up study of juveniles released from two correctional high schools in Wisconsin. *Journal of Correctional Education, 37*(3), 114-117.

Hahn, A. (1987). Reaching out to America's dropouts: What to do? *Phi Delta Kappan, 69*(4), 256-263.

Hallinan, M.T., & Williams, R.A. (1990). Students' characteristics and peer influence process. *Sociology of Education, 63*(2), 122-132.

Hammack, F.M. (1986). Large school systems' dropout reports: An analysis of definitions, procedures, and findings. *Teachers College Record, 87*(3), 324-341.

Hanks, M.P., & Eckland, B.K. (1976). Athletics and social participation in the educational attainment process. *Sociology of Education, 49*(4), 271-294.

Hanson, S.L., & Ginsburg, A.L. (1988). Gaining ground: Values and high school success. *American Educational Research Journal, 25*(3), 334-365.

Harris, L.H. (1983). Role of trauma in the lives of high school dropouts. *Social Work in Education, 5*(2), 77-88.

Hartnagel, T.F., & Krahn, H. (1989). High school dropouts, labor market success, and criminal behavior. *Youth and Society, 20*(4), 416-444.

Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. *Journal of Economic Literature, 33(4)*, 1855-1857.

Haveman, R., Wolfe, B., & Spaulding, J. (1991). Childhood events and circumstances influencing high school completion. *Demography, 28*(1), 133-157.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64-105.

Hawkins, J.D., Lishner, D.M., Catalano, R.F., & Howard, M.O. (1986). Childhood and chemical abuse: Prevention and intervention. *Journal of Children in Contemporary Society, 18*(1-2), 11-48.

Hein, C., & Lewko, J. (1994). Profiles of young adults based on regional databases. In P. Anisef (Ed.), *Learning and sociological profiles of Canadian high school students: An overview of 15 to 18 year olds and educational policy implications for dropouts, exceptional students, employed students, immigrant students, and native youth* (pp. 317-409). Queenston, ON: The Edwin Mellen Press.

Herrnstein, R.J., & Murray, C. (1994). *The bell curve: Intelligence and class structure in American life.* New York: The Free Press.

Hess, F. (1986). Educational triage in an urban school. *Metropolitan Education, 1*(2), 29-52.

Hess, F. (1987). *A comprehensive analysis of the dropout phenomenon in an urban school setting.* Chicago, IL. (ERIC Document Reproduction Service No. ED 287 202)

Hirsch, B.J., & Rapkin, B.D. (1987). The transition to junior high school: A longitudinal study of self-esteem, psychological symptomatology, school life, and social support. *Child Development, 58*(5), 1235-1243.

Hirschi, T. (1969). *Causes of delinquency.* Berkeley, CA: University of California Press.

Hirschi, T. (1991). Family structure and crime. In B.J. Christensen (Ed.), *When families fail: The social costs* (pp. 43-65). Lanham, MD: University Press of America.

Hoffer, T.B., Rasinski, K.A., Moore, W. (1995). *Social background differences in high school mathematics and science course taking and achievement.* Washington, DC: National Center for Education Statistics.

Holland, A., & Andre, T. (1987). Participation in extracurricular activities in secondary

school: What is known, what needs to be known? *Review of Educational Research, 57*(4), 437-466.

Hollander, J., & Brush, B. (1996). Improving Grade 9 Native students' retention rates with a community based transition-years project. *Canadian School Executive, 15*(7), 17-20.

Holmes, M. (1990). A faltering step in the right direction. *Orbit, 4*(12), 5-6.

Howell, F.M., & Frese, W. (1982). Early transition into adult roles: Some antecedents and outcomes. *American Educational Research Journal, 19*(1), 51-73.

Hung, K., & Lipinski, S. (1995). Questions and answers on youth and justice. *Forum of Corrections Research, 7*(1), article 2.

Ingram, A.L. (1993). Type of place, urbanism, and delinquency: Further testing the determinist theory. *Journal of Research in Crime and Delinquency, 30*(2), 192-212.

James, W., Smith, A., & Mann, R. (1991). Educating homeless children: Interprofessional case management. *Childhood Education, 67*(5), 305-308.

Janosz, M., Leblanc, M., Boulerice, B., & Tremblay, R.E. (1997). Disentangling the weight of school dropout predictors: A test on two longitudinal samples. *Journal of Youth and Adolescence, 26*(6), 733-762.

Jansen, C., & Haddad, T. (1994). Profiles of young adults based on national and provincial databases. In P. Anisef (Ed.), *Learning and sociological profiles of Canadian high school students: An overview of 15 to 18 year olds and educational policy implications for dropouts, exceptional students, employed students, immigrant students, and native youth* (pp. 213-316). Queenston, ON: The Edwin Mellen Press.

Jarjoura, G.R. (1993). Does dropping out of school enhance delinquent involvement? Results from a large-scale national probability sample. *Criminology, 31*(2), 149-172.

Jenkins, J.E., & Zunguze, S.T. (1998). The relationship of family structure to adolescent drug use, peer affiliation, and perception of peer acceptance of drug use. *Adolescence, 33*(132), 811-822.

Jenkins, P.H. (1995). School delinquency and school commitment. *Sociology of Education, 68*(3), 221-239.

Jewison, C. (1995). Our students, our future: Innovations in First Nations Education in the NWT. *Education Canada, 35*(1), 4-11.

Jimerson, S., Carlson, E., Rotert, M., Egeland, B., & Sroufe, A.L. (1997). A prospective, longitudinal study of the correlates and consequences of early grade retention. *Journal of School Psychology, 35*(1), 3-25.

Jordan, J.J., Lara, J., & McPartland, J.M. (1996). Exploring the causes of early dropout

among race-ethnic and gender groups. *Youth & Society, 28*(1), 62-94.

Judge, K., & Benzeval, M. (1993). Health inequalities: New concerns about the children of single mothers. *British Medical Journal, 306*(6879), 677-680.

Kandel, D.B., & Andrews, K. (1987). Processes of adolescent socialization by parents and peers. *International Journal of the Addictions, 22*(4), 319-342.

Kaplan, D.S., Peck, B.M., Kaplan, H.B. (1995). A structural model of dropout behavior: A longitudinal analysis. *Applied Behavioral Science Review, 3*(2), 177-193.

Karp, E. (1988). *The drop-out phenomenon in Ontario secondary schools: A report to the Ontario study of the relevance of education and the issue of dropouts.* (Student retention and transition series: Ontario Ministry of Education). Toronto, ON: Queen's Printer for Ontario.

Kaufman, P., & Bradby, D. (1992). *Characteristics of at-risk students in the NELS: 88. National Educational Longitudinal study of 1988.* (DOE Publication No. NCES 92-042). Washington, DC: National Center for Educational Statistics. (ERIC Document Reproduction Service No. ED 349 369)

Kaufman, P., McMillen, M.M., Germino-Hausken, E., & Bradby, D. (1992). *Dropout rates in the United States: 1991.* (DOE Publication No. NCES-92-129). Washington, DC: National Center for Educational Statistical Analysis. (ERIC Document Reproduction Service No. ED 420 728)

King, A.J.C., Warren, W.K., Michalski, C., & Peart, M.J. (1988). *Improving student retention in Ontario secondary schools.* (Student retention and transition series: Ontario Ministry of Education). Toronto, ON: Ontario Ministry of Education.

Kohen, D.E. (1999). Neighbourhood affluence and school readiness. (Statistics Canada, Catalogue No. 81-003-XIB-Quarterly). *Education Quarterly Review, 6*(1), 44-52.

Kortering, L.J., & Blackorby, J. (1992). High school dropout and student identified with behavioral disorders. *Behavioral Disorders, 18*(1), 24-32.

Kortering, L.J., Haring, N., & Klockars, A. (1992). The identification of high school dropout identified as learning disabled: Evaluating the utility of discriminant analysis function. *Exceptional Children, 58*(5), 422-435.

Kronick, R.F., & Hargis, C.H. (1998). *Dropouts: Who drops out and why - and the recommended action* (2nd ed.). Springfield, IL: Charles C. Thomas Publishers.

Kupersmidt, J.B., & Coie, J. D. (1990). Preadolescent peer status, aggression, and school adjustment as predictors of externalizing problems in adolescence. *Child Development, 61*(5), 1350-1363.

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing.* Thousand Oaks,

CA: Sage.

Lafleur, B. (1992). *Dropping out: The cost to Canada.* Ottawa, ON: Conference Board of Canada, Report 83-92-E.

Landau, S.F. (1976). Delinquency, institutionalization, and time orientation. *Journal of Consulting and Clinical Psychology, 44*(5), 745-759.

Landers, D.M., & Landers, D.M. (1978). Socialization via interscholastic athletics: Its effects on delinquency. *Sociology of Education, 51*(4), 299-303.

Larter, S., & Eason, G. (1978). *The leaving school early students: characteristics and opinions.* Toronto, ON: The Board of Education for the City of Toronto: Research Department.

Lawton, S.B. (1994). *Part-time work and the high school student: Costs, benefits and future. A review of the literature and research needs.* Toronto, ON: Ontario Institute for Studies in Education, University of Toronto. Department of Educational Administration. (ERIC Document Reproduction Service No. ED 420 728)

Leaseberg, M.G., Kaplan, H.I., & Sadock, B. (1990). *Inventory of personal skills for achievement: Validity and reliability study of an instrument for identifying educationally at risk junior high school students.* Oklahoma. (ERIC Document Reproduction Service No. ED 337 322)

LeBlanc, M., Vallières, E., & McDuff, P. (1993). The prediction of males' adolescence and adult offending from school experience. *Canadian Journal of Criminology, 35*(4), 459-478.

LeCompte, M.D., & Dworkin, A.G. (1991). *Giving up on school: Student dropouts and teacher burnouts.* Newbury Park, CA: Corwin Press.

Lee, V.E., & Burkam, D.T. (1992). Transferring high schools: An alternative to dropping out? *American Journal of Education, 100*(4), 420-453.

Lefebvre, P., & Merrigan, P. (1998). *Family background, family income, maternal work and child development.* (Working Papers No. W-98-12E). Hull, PQ: Applied Research Branch, Strategic Policy: Human Resources Development Canada.

LeFlore, L. (1988). Delinquent youths and family. *Adolescence, 23*(91), 629-642.

Levin, H.M. (1989). Financing the education of at-risk students. *Education Evaluation and Policy Analysis, 11*(1), 47-60.

Lichtenstein, S. (1993). Transition from school to adulthood: Case studies of adults with learning disabilities who dropped out of school. *Exceptional Children, 59*(4), 336-347.

Light, A. (1995). The effects of interrupted schooling on wages. *The Journal of Human Resources, 30*(3), 472-502.

Lindsay, P. (1984). High school size, participation in activities, and young adult social participation: Some enduring effects of schooling. *Educational Evaluation and Policy Analysis, 6*(1), 73-83.

Lindström, P. (1996). Family interaction, neighbourhood context and deviant behaviour: A research note. *Studies on Crime and Crime Prevention, 5*(1), 113-119.

Lipman, E.L., Offord, D.R., & Dooley, M.D. (1996). What do we know about children from single-mother families? Questions and answers from the national longitudinal survey of children and youth. In Statistics Canada. *Growing up in Canada: National longitudinal survey of children and youth* (pp. 83-91). (Catalogue 89-550-MPE, no 1). Ottawa, ON: Human Resources Development Canada.

Lipps, G., & Frank, J. (1997). The national longitudinal survey of children and youth, 1994-95: Initial results from the school component. (Statistics Canada, Catalogue No. 81-003- XPB). *Education Quarterly Review, 4*(2), 43-57.

Loeber, R. (1991). Antisocial behavior: More enduring than changeable? *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(3), 393-397.

Loeber, R., & Farrington, D.P. (1998). Never too early, never too late: Risk factors and social successful interventions for serious and violent juvenile offenders. *Studies on Crime & Crime Prevention, 7*(1), 7-30.

Loeber, R., Green, S.M., Keenan, K., & Lahey, B.B. (1995). Which boys will fare worse? Early predictors of the onset of conduct disorder in a six-year longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*(4), 499-509.

Loeber, R., & Stouthamer-Loeber, M. (1987). Prediction. In H.C. Quay (Ed.), *Handbook of juvenile delinquency* (pp. 325-382). New York: John Wiley and Sons.

Loughrey, M.E., & Harris, M.B. (1990). A descriptive study of at-risk high school students. *The High School Journal, 73*(4), 187-193.

Mahoney, J.L., & Cairns, R.B. (1997). Do extracurricular activities protect against early school dropouts? *Developmental Psychology, 33*(2), 241-252.

Mann, D. (1986). Can we help dropouts: Thinking about the undoable. *Teachers College Record, 87*(3), 307-323.

Marsh, H.W. (1991). Employment during high school: Character building or a subversion of academic goals? *Sociology of Education, 64*(3), 172-189.

Masten, A.S. (1992). Homeless children in the United States: Mark of a nation at risk. *Current Directions in Psychological Science, 1*(2), 41-44.

Masten, A.S., Miliotis, D., Graham-Bermann, S.A., Ramirez, M., & Neemann, J. (1993). Children in homeless families: Risks to mental health and development. *Journal of Consulting and Clinical Psychology, 61*(2), 335-343.

Masten, A.S., Sesma, A., Si-Asar, R., Lawrence, C., Miliotis, D., & Dionne, J.A. (1997). Educational risks for children experiencing homelessness. *Journal of School Psychology, 35*(1), 27-46.

Matsueda, R.L., & Heimer, K. (1987). Race, family structure and delinquency: A test of differential association and social control theories. *American Sociological Review, 52*(6), 826-840.

McAlpine, H. (1992). *A comparative analysis of students who drop out and remain in high school.* Unpublished doctoral dissertation, The University of Alabama, Birmingham, AL.

McDill, E.L., Natriello, G., & Pallas, A.M. (1985). Raising standards and retaining students: The impact of the reform recommendations on potential dropouts. *Review of Educational Research, 55*(4), 415-433.

McDill, E.L., Natriello, G., & Pallas, A.M. (1986). A population at risk: Potential consequences of tougher school standards for student dropouts. *American Journal of Education, 94*(2), 135-181.

McLanahan, S.S., & Sandefur, G.D. (1994). *Growing up with a single parent: What hurts, what helps.* Cambridge, MA: Harvard University Press.

McMillen, M.M., Kaufman, P., Hausken, E.G., & Bradby, D. (1993). *Dropout rates in the United States: 1992.* National Center for Educational Statistical Analysis. Washington, DC: Government Printing Office.

McNeal, R.B. (1995). Extracurricular activities and high school dropouts. *Sociology of Education, 68*(1), 62-81.

McNeal, R.B. (1997). High school dropouts: A closer examination of school effects. *Social Science Quarterly, 78*(1), 209-222.

McWhirter, J.J., McWhirter, B.T., McWhirter, A.M., & McWhirter, E.H. (1993). *At-risk youth: A comprehensive response.* Pacific Grove, CA: Brooks/Cole Publishing Company.

Mensch, B.S., & Kandel, D.B. (1988). Dropping out of high school and drug involvement. *Sociology of Education, 61*(2), 95-113.

Meyer, K.A. (1987). The work commitment of adolescents: Progressive attachment to the work force. *The Career Development Quarterly, 36*(2), 140-147.

Montigny, G., & Jones, S. (1990). Overview of literacy skills in Canada. (Statistics Canada, Catalogue No. 75-001-E). *Perspectives on Labour and Income, 2*(4), 32-39.

Morash, M., & Rucker, L. (1989). An exploratory study of the connection of mother's age at childbearing to her children's delinquency in four data sets. *Crime and Delinquency, 35*, 45-93.

Murdock, T.B. (1999). The social context of risk: Status and motivational predictors of alienation in middle school. *Journal of Educational Psychology, 91*(1), 62-75.

Nathan, P.E. (1990). Residual effects of alcohol. National Institute on Drug Abuse Research Monograph Series. *Research Mono*, 101, 112-123.

National Crime Prevention Council. (1995). *Offender Profiles.* [On-line] Prevention and Children Committee. Available: http://www.web.apc.org/-ncpc/ work/offpro_e.html.yo

Natriello, G., McDill, E.L., & Pallas, A.M. (1990). *Schooling disadvantaged children: Racing against catastrophe.* New York: Teachers College Press.

NCES. (1996). *Goal 2 high school completion: What do we know.* [On-line] U.S. Department of Education. Available: http://www.ed.govpubs/ReachingGoals/Goals _2/Dropouts.

Needle, R.H., Su, S., & Doherty, W.J. (1990). Divorce, remarriage, and adolescent drug involvement: A longitudinal study. *Journal of Marriage and the Family, 52*(1), 157-169.

Nettler, G. (1984). *Explaining crime.* New York: McGraw-Hill.

Neufeld, G., & Stevens, A. (1991). *Executive summary of research on school dropouts and implications for special education.* Invitational form: Planning for exceptional students.

Neuman, W.L. (1997). *Social research methods: Qualitative and quantitative approaches* (3rd ed.). Needham Heights, MA: Allyn & Bacon.

Newcomb, M.D., & Bentler, P.M. (1988). *Consequences of adolescent drug use: Impact on the lives of young adults.* Newbury Park, CA: Sage.

Newmann, F.M., Wehlage, G.G., & Lamborn, S.D. (1992). The significance and sources of student engagement. In F.M. Newmann (Ed.), *Student engagement and achievement in American secondary schools* (pp. 11-39). New York: Teachers College Press.

Norris, L.G. (1993). *A study of adolescents with behavioral disorders who remain in school, and those who drop out.* Unpublished doctoral dissertation, The University of Maryland, College Park, MD.

Nuttall, J.H. (1988). *An update of illiteracy in New York's correctional system.* New York: Department of Correctional Services.

Oakland, T. (1992). School dropouts: Characteristics and prevention. *Applied & Preventive Psychology, 1*(4), 201-208.

Oderkirk, J. (1993). Educational achievement: An international comparison. (Statistics Canada, Catalogue No. 11-008E). *Canadian Social Trends,* (Autumn), 8-12.

Offord, D.R., & Bennett, K.J. (1994). Conduct disorder: Long-term outcome of conduct disorder and interventions and their effects. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*(8), 1069-1078.

Offord, D.R., Boyle, M.H., Racine, Y.A., Fleming, J.E., Cadman, D.T., Blum, H.M., Byrne, C., Links, P.S., Lipman, E.L., MacMillan, H.L., Grant, N.I.R., Sanford, M.N., Szatmari, P., Thomas, H., & Woodward, C.A. (1992). Outcome, prognosis and risk in a longitudinal follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*(5), 916-923.

Offord, D.R., & Lipman, E.L. (1996). Emotional and behavioural problems. In Statistics Canada. *Growing up in Canada: National Longitudinal survey of children and youth* (pp. 119-126). (Statistics Canada, Catalogue No. 89-550-MPE, no 1). Ottawa, ON: Human Resources Development Canada.

Okey, T.N., & Cusick, P.A. (1995). Dropping out: Another side of the story. *Educational Administration Quarterly, 31*(2), 244-267.

Orr, M.T. (1987). *Keeping students in school: A guide to effective dropout and prevention programs and services.* San Francisco: Jossey-Bass Publishers.

Pallas, A.M. (1987). *The determinants of high school dropout.* Unpublished doctoral dissertation, John Hopkins University, Baltimore, MD.

Parker, J.G., & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*(3), 357-389.

Parkin, M. (1989). *Action research on dropouts.* Ottawa, ON: Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 808 577)

Patterson, G.R. (1995). Coercion as a basis for early age of onset for arrest. In J. McCord (Ed.), *Coercion and punishment in long-term perspectives* (pp. 81-105). New York: Cambridge University Press.

Patterson, G.R. (1996). Some characteristics of a developmental theory for early onset delinquency. In M. F. Lenzenweger & J. Haugaard (Eds.), *Frontiers of developmental psychopathology* (pp. 81-124). New York: Oxford University Press.

Patterson, G.R., DeBaryshe, B.D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*(2), 329-335.

Patterson, G.R., Reid, J.B., & Dishion, T.J. (1991). *Antisocial boys.* Eugene, OR: Castalia.

Pawlovich, W. (1984). The Saskatchewan early school leaving study. *The Administrator, 16*(1), 42-56.

Pawlovich, W. (1985). Early school leaving: Antecedents, correlates and consequences. *Guidance & Counselling, 1*(2), 41-54.

Peeples, F., & Loeber, R. (1994). Do individual factors and neighbourhood context explain ethnic differences in juvenile delinquency? *Journal of Quantitative Criminology, 10*(2), 141-157.

Peng, S.S. (1985). *High school dropouts: A national concern.* (DOC Publication No. NCES-83-221B). Washington, DC: National Center for Educational Statistics. (ERIC Document Reproduction Service No. ED 278 739)

Peng, S.S., & Lee, R.M. (1993). *Educational experiences and needs of middle school students in poverty* (DOE Publication No. NCES 83-221b). Washington, DC: National Center for Education Statistics. (ERIC Document Reproduction Service No. ED 364 628)

Pestello, F.G. (1989). Misbehavior in high school classrooms. *Youth & Society, 20*(3), 290-306.

Pianta, R.C., & Steinberg, M. (1993). Teacher-child relationships and the process of adjusting to school. *New Directions for Child Development, 57*(Fall), 61-80.

Pianta, R.C., & Steinberg, M.S., & Rollins, K.B. (1995). The first two years of school: Teacher-child relationships and deflections in children's classroom adjustment. *Development and Psychopathology, 7*(2), 295-312.

Pianta, R.C. (1994). Patterns of relationships between children and kindergarten teachers. *Journal of School Psychology, 32*(1), 15-31.

Pittman, R.B. (1991). Social factors, enrollment in vocational/technical courses, and high school dropout rates. *Journal of Educational Psychology, 84*(5), 288-295.

Pittman, R.B., & Haughwout, P. (1987). Influence of high school size on dropout rate. *Educational Evaluation and Policy Analysis, 9*(4), 337-343.

Plankenhorn, A. (1989). *Murphy High School: 1986-87 school report.* Atlanta, GA: Atlanta Public Schools Division of Curriculum and Research Services. (ERIC Document Reproduction Service No. ED 287 942)

Plutchik, R., & van Praag, H.M. (1997). Suicide, impulsivity, and antisocial behavior. In

D.M. Stoff, J. Breiling, & J.D. Maser (Eds.), *Handbook of antisocial behavior* (pp. 101-108). New York: John Wiley & Sons, Inc.

Popp, R.J. (1991). *Past and present educational experiences of parents who enrolled in Kenan Trust family literacy programs.* (ERIC Document Reproduction Service No. ED 340 874)

Potter, L.B., & Mercy, J.A. (1997). Public health perspective on interpersonal violence among youths in the United States. In D.M. Stoff, J. Breiling, & J.D. Maser (Eds.), *Handbook of antisocial behavior* (pp. 3-11). New York: John Wiley & Sons, Inc.

Quirouette, P., Saint-Denis, O., & Huot, N. (1990). *Identifying probable school leavers in Ontario high schools.* (Student retention and transition series: Ontario Ministry of Education). Toronto, ON: Queen's Printer for Ontario.

Radwanski, G. (1987). *Ontario study of the relevance of education, and the issue of dropouts.* Toronto, ON: Ontario Ministry of Education.

Rafferty, Y., & Shinn, M. (1991). The impact of homelessness on children. *American Psychologist, 46*(11), 1170-1179.

Raychaba, B. (1989). Canadian youth in care: Leaving care to be on our own with no direction from home. *Children and Youth Services Review, 11*(1), 61-73.

Raychaba, B. (1992). Doing and being done to. *Journal of Emotional and Behavioral Problems, 1*(3), 4-9.

Raymond, J. (1992). Canada must develop training culture. *The Globe and Mail*, p. B8.

Robins, L., West, P., & Herjanic, B. (1975). Arrests and delinquency in two generations. *Journal of Child Psychology and Psychiatry, 16*(2), 125-140.

Robins, L.N., & Price, R.K. (1991). Adult disorders predicted by childhood conduct problems: Results from the NIMH epidemiological catchment area project. *Psychiatry, 54*(2), 116-132.

Roderick, M.R. (1993). *The path to dropping out: Evidence for intervention.* Westport, CT: Auburn House.

Rogosch, F.A., & Cicchetti, D. (1994). Illustrating the interface of family and peer relations through the study of child maltreatment. *Social Development, 3*(3), 291-308.

Ross, D.P., Roberts, P.A., & Scott, K. (1998a). *Variations in child development outcomes among children living in lone-parent families.* (Working Papers No. W-98-7E). Hull, PQ: Applied Research Branch, Strategic Policy: Human Resources Development Canada.

Ross, D.P., Roberts, P.A., & Scott, K. (1998b). *Mediating factors in child development outcomes: Children in lone-parent families.* (Working Papers No. W-98-8E). Hull, PQ: Applied Research Branch, Strategic Policy: Human Resources Development Canada.

Ross, D.P., Scott, K., & Kelly, M.A. (1996a). *Child poverty: What are the consequences?* Ottawa, ON: Centre for International Statistics. Canadian Council on Social Development.

Ross, D.P., Scott, K., & Kelly, M.A. (1996b). Overview: Children in Canada in the 1990s. In Statistics Canada (1996). *Growing up in Canada: National Longitudinal survey of children and youth* (pp. 15-46). (Statistics Canada, Catalogue No. 89-550-MPE, no 1). Ottawa, ON: Human Resources Development Canada.

Ross, D.P., Shillington, E.R., & Lochhead, C. (1994). *The Canadian Factbook on poverty--1994.* Ottawa, ON: Canadian Council on Social Development.

Ruby, T., & Law, R. (1987). *School dropouts-why does the problem prevail?* New Orleans, LA: Annual Meeting of the National Association of School Psychologists. (ERIC Document Reproduction Service No. ED 289 095)

Rumberger, R.W. (1981). *Why kids drop out of high school.* Program Report No. 81-B4. Stanford, CA: Institute for Research on Educational Finance and Governance.

Rumberger, R.W. (1983). Dropping out of high school: The influence of race, sex, and family background. *American Educational Research Journal, 20*(2), 199-220.

Rumberger, R.W. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research, 57*(2), 101-121.

Rumberger, R.W. (1995). Dropping out of middle school: A multilevel analysis of students and schools. *American Educational Research Journal, 32*(3), 583-625.

Rumberger, R.W., Ghatak, R., Poulos, G., Ritter, P.L., & Dornbusch, S.M. (1990). Family influences on dropout behaviour in one California high school. *Sociology of Education, 63*(4), 283-299.

Rumberger, R.W., & Larson, K.A. (1998). Student mobility and the increased risk of high school dropout. *American Journal of Education, 107*(1), 1-35.

Rylance, B.J. (1997). Predictors of high school graduation or dropping out for youths with severe emotional disturbances. *Behavioral Disorders, 23*(1), 5-17.

Sampson, R.J. (1987). Urban black violence: The effects of male joblessness and family disruption. *American Journal of Sociology, 93*(2), 348-382.

Sampson, R.J., & Laub, J.H. (1993). *Crime in the making: Pathways and turning points through life.* Cambridge, MA: Harvard University Press.

Sandefur, G.D., McLanahan, S., & Wojtkiewicz, R.A. (1992). The effects of parental marital status during adolescence on high school graduation. *Social Forces, 71*(1), 103-121.

Saner, H., & Ellickson, P. (1996). Concurrent risk factors for adolescent violence. *Journal of Adolescent Health, 19*(2), 94-103.

Schafer, W.E. (1969). Participation in interscholastic athletics and delinquency: A preliminary study. *Social Problems, 17*(1), 40-47.

Schafer, W.E. (1972). Participation in interscholastic athletics and delinquency: A preliminary study. In K. Polk & W.E. Schafer (Eds.), *Schools and delinquency* (pp. 91-101). Englewood Cliffs: Prentice-Hall.

Schuler, D.B. (1990). Effects of family mobility on student achievement. *ERS Spectrum: Journal of School Research and Information, 8*(4), 17-24.

Schulz, E.M., Toles, R., Rice, W.K., Brauer, I., & Harvey, J. (1986). *Association of dropout rates with student attributes.* Chicago, IL: Chicago Public Schools. (ERIC Document Reproduction Service No. ED 274 071)

Schwartz, W. (1995). *New information on youth who drop out: Why they leave and what happens to them.* [On-line]. Available: http://www.eric-web.tc.columbia.edu/ guides/pg13.1

Segal, B., Huba, G.J., & Singer, J.L. (1980). Reasons for drug and alcohol use by college students. *International Journal of Addictions, 15*(4), 489-498.

Seidman, E., Allen, L., Aber, J.L., Mitchell, C., & Feinman, J. (1994). The impact of school transitions in early adolescence on the self-system and perceived social context of poor urban youth. *Child Development, 65*(2), 507-522.

Self, T. (1985). *Dropouts: A review of the literature. Project talent search.* Monroe, LA: Louisiana University. (ERIC Document Reproduction Service No. ED 260 307)

Sharman, R.G. (1990). Student dropouts and scheduling patterns in secondary schools: An exploratory study. *The Alberta Journal of Educational Research, 36*(4), 325-336.

Shepard, L.A. (1989). A review of research on kindergarten retention. In L.A. Shepard & M.L. Smith (Eds.), *Flunking grades: Research and policies on retention* (pp. 64-78). London: The Falmer Press.

Shepard, L.A., & Smith, M.L. (Eds.). (1989). *Flunking grades: Research and policies on retention.* London: The Falmer Press.

Shepard, L.A., & Smith, M.L. (1990). Synthesis of research on grade retention. *Educational Leadership, 47*(8), 84-88.

Simmer, M.L., & Barnes, M.J. (1991). Relationship between first-grade marks and the high school dropout problem. *Journal of School Psychology, 29*(4), 331-335.

Simmons, R.G., Burgeson, R., Carlton-Ford, S.L., & Blyth, D.A. (1987). The impact of cumulative change in early adolescence. *Child Development, 58*(5), 1220-1234.

Smale, W.T. (2001). *Understanding the issue of dropouts: A young offender perspective.* Unpublished doctoral dissertation, University of Alberta, Edmonton, AB.

Smith, J.O. (1986). *Voices of exiles: The public schools from the dropout's perspective.* Mansfield, PA: Mansfield University. (ERIC Document Reproduction Service No. ED 275 932)

Snyder, J.J., & Patterson, G.R. (1995). Individual differences in social aggression: A test of a reinforcement model of socialization in the natural environment. *Behavior Therapy, 26*(2), 371-391.

Soderberg, L.J. (1988). Educators knowledge of the characteristics of high school dropouts. *The High School Journal, 71*(3), 108-115.

Spain, W.H., & Sharpe, D.B. (1990). *The early school leavers: Initial survey - summary report: Youth transition into the labour market.* St. John's, NFLD: Center for Educational Research and Development, Memorial University of Newfoundland.

Spreitzer, E., & Pugh, M.D. (1973). Interscholastic athletics and educational expectations. *Sociology of Education, 46*(2), 171-182.

Statistics Canada. (1990). *Qualitative research on school leavers.* Summary final report. Minister of Supply and Services, Canada.

Statistics Canada. (1994). *Canada year book* (Catalogue No. 11-402E/1994). Ottawa, ON: Author.

Stedman, J.B., Salganik, L.H., & Celebuski, C.A. (1988). *Dropping out: The educational vulnerability of at-risk youth* (CRS Report for Congress 88 417-EPW). Washington, DC: Congressional Research Services. (ERIC Document Reproduction Service No. ED 300 495)

Steele, D.L. (1992). *Profile of the school dropout: Perceptions of the early school leaver.* Unpublished doctoral dissertation, Texas A & M University, Auburn, AL.

Steinberg, L., Blinde, P.L., & Chan, K.S. (1984). Dropping out among language minority youth. *Review of Educational Research, 54*(1), 113-132.

Steinberg, L., & Dornbusch, S.M. (1991). Negative correlates of part-time employment during adolescence: Replication and elaboration. *Developmental Psychology, 27*(2), 304-313.

Stern, D., Stone, J., Hopkins, C., & McMillion, M. (1990). Quality of student's work

experiences and orientation toward work. *Youth and Society, 22*(2), 263-281.

Stern, M.J. (1987). The welfare families. *Educational Leadership, 44*(6), 82-87.

Stroup, A.L., & Robins, L.N. (1972). Elementary school predictors of high school dropout among black males. *Sociology of Education, 45*(2), 212-222.

Sudermann, M., & Jaffe, P.G. (1997). Children and youth who witness violence: New directions in intervention and prevention. In D.A. Wolfe, R. J. McMahon, & R.D. Peters (Eds.), *Child abuse: New directions in prevention and treatment across the lifespan* (pp. 55-78). Thousand Oaks, CA: Sage.

Sullivan, M. (1988). *A comparative analysis of drop-outs and non-dropouts in Ontario secondary schools: A report to the Ontario study of the relevance of education and the issue of dropouts.* (Student retention and transition series: Ontario Ministry of Education). Toronto, ON: Queen's Printer for Ontario.

Sum, A., & Fogg, W.N. (1996). *The labor market problem of the nation's out-of youth population: The case for a new workforce development initiative.* Baltimore, MD: Center for Social Policy Studies. (ERIC Document Reproduction Services No. ED 398 445)

Sunter, D. (1993). School, work, and dropping out. (Statistics Canada, Catalogue No. 75-001-E). *Perspectives on Labour and Income, 5*(2), 44-52.

Tanner, C.K. (1989). Probable impact of educational policy on at-risk students. *Journal of Research and Development in Education, 22*(2), 1-5.

Tanner, J. (1990). Reluctant rebels: A case study of Edmonton high school drop-outs. *The Canadian Review of Sociology and Anthropology, 27*(1), 74-94.

Tanner, J., & Krahn, H., & Hartnagel, T.F. (1995). *Fractured transitions from school to work: Revisiting the dropout problem.* Toronto, ON: Oxford University Press.

The Canadian Press. (1991, July 15). "Recession bolsters campaign to keep kids in school." *The North Bay Nugget,* p. A-7.

Thornberry, T.P., Moore, M., & Christenson, R.L. (1985). The effects of dropping out of high school on subsequent criminal behaviour. *Criminology, 23*(1), 3-18.

Tidwell, R. (1988). Dropouts speak out: Qualitative data on early school departures. *Adolescence, 23*(92), 939-954.

Tygart, C.E. (1991). Juvenile delinquency and number of children in a family. *Youth & Society, 22*(4), 525-536.

U.S. Department of Education. (1992). *Digest of education statistics.* Washington, DC: National Center for Education Statistics.

U.S. Department of Education. (1993). *Digest of educational statistics.* Washington, DC: US Government Printing Office.

U.S. Department of Education. (1994). *To assure the free appropriate public education of all children with disabilities: Sixteenth annual report to Congress on the implementation of The Individuals with Disabilities Education Act.* Washington, DC: US Government Printing Office.

Uihlein, C. (1994). Drugs and alcohol. In T. Hirschi & M.R Gottfredson (Eds.), *The generality of deviance* (pp. 149-157). New Brunswick, NJ: Transaction Publishers.

Vail, K. (1996). Learning on the move: High student turnover spells trouble for students and schools alike. *The American School Board Journal, 183*(12), 20-25.

Valdes, K.A., Williamson, C., & Wagner, M. (1990). *The National Longitudinal Transition Study of Special Education Students.* Statistical Almanac Vol. 3, Youth categorized as emotionally disturbed. Menlo Park, CA: SRI International.

Vartanian, T.P., & Gleason, P.M. (1999). Do neighborhood conditions affect high school dropout and college graduation rates? *Journal of Socio-Economics, 28*(1), 1-25.

Velez, W. (1989). High school attrition among hispanic and non-hispanic white youths. *Sociology of Education, 62*(2), 119-133.

Wadsworth, J., Burnell, I., Taylor, B., & Butler, T. (1985). The influence of family type on children's behaviour and development at five years. *Journal of Child Psychology and Psychiatry, 26*(2), 245-254.

Wagenaar, T.C. (1987). What do we know about dropping out of high school? *Research in Sociology of Education and Socialization, 7*, 161-190.

Wagner, M. (1991a). *Dropouts with disabilities: What do we know? What can we do? A report from the National Longitudinal Transition Study of Special Education Students.* Washington, DC: Special Education Programs. (ERIC Document Reproduction Service No. ED 341 226)

Wagner, M. (1991b). Sticking it out: Secondary school completion. In M. Wagner, L. Newman, R. D'Amico, E. Jay, P. Butler-Nalin, C. Marder, & R. Cox (Eds.), *Youth with disabilities: How are they doing* (pp. 1-31). Menlo Park, CA: SRI International.

Waterhouse, P. (1990). *Qualitative research on school leavers: Summary final report.* Ottawa, ON: Employment and Immigration Canada and Statistics Canada.

Wehlage, G.G., & Rutter, R.A. (1986). Dropping out: How much do schools contribute to the problem? *Teachers College Record, 87*(3), 374-392.

Wehlage, G.G., Rutter, R.A., Smith, G.A., Lesko, N.L., & Fernandez, R.R. (1990). *Reducing the risk: Schools as communities of support.* Philadelphia: The Falmer Press.

Weis, L., Farrar, E., & Petrie, H.G. (1989). *Dropouts from school: Issues, dilemmas, and solutions.* Albany, NY: State University of New York Press.

Weishew, N.L., & Peng, S.S. (1993). Variables predicting students' problem behavior. *Journal of Educational Research, 87*(1), 5-17.

West, G. (1984). *Young offenders and the state: A Canadian perspective on delinquency.* Toronto, ON: Butterworths.

Wichstrom, L. (1998). Alcohol intoxication and school dropout. *Drug and Alcohol Review, 17*(4), 413-421.

Widom, C.S. (1997). Child abuse, neglect, and witnessing violence. In D.M. Stoff, J. Breiling, & J.D. Maser (Eds.), *Handbook of antisocial behavior* (pp. 159-170). New York: John Wiley & Sons, Inc.

Wiersma, W. (2000). *Research methods in education: An introduction* (5th ed.). Needham Heights, MA: Allyn and Bacon.

Will, M.C. (1986). Education of children with learning problems: A shared responsibility. *Exceptional Children, 52*(5), 411-415.

Willms, J.D. (1996). Indicators of mathematics achievement in Canadian elementary schools. In Statistics Canada (1996). *Growing up in Canada: National Longitudinal survey of children and youth* (pp. 69-82). (Statistics Canada, Catalogue No. 89-550-MPE, no 1). Ottawa, ON: Human Resources Development Canada.

Willms, J.D., & Kerckhoff, A.C. (1995). The challenge of developing new educational indicators. *Educational Evaluation and Policy Analysis, 17*(1), 113-131.

Wilson, J.J., & Howell, J.C. (1995). Comprehensive strategy for serious, violent, and chronic juvenile offenders. In J.C. Howell, B. Krisberg, J.D. Hawkins, & J.J. Wilson (Eds.), *A sourcebook: Serious, violent, & chronic juvenile offenders* (pp. 36-46). Thousand Oaks, CA: Sage.

Wilson, J.Q., & Herrnstein, R.J. (1985). *Crime and human nature.* New York: Simon and Schuster.

Wilson, W.J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy.* Chicago: University of Chicago Press.

Windle, M., & Blane, H.T. (1989). Cognitive ability and drinking behavior in a national

sample of young adults. *Alcoholism: Clinical and Experimental Research, 13*(1), 43-48.

Winters, K., & Kickbush, P. (1996). *Manual to combat truancy: The problem of truancy in America's communities.* [On-line] U.S. Department of Education. Available: http://www.ed.gov/MailingLists/EDInfo/0139.html.

Wolfgang, M. E., Thornberry, T.P., & Figlio, R.M. (1987). *From boy to man, from delinquency to crime.* Chicago: University of Chicago Press.

Wood, D., Halfon, N., Scarla, D., Newacheck, P., & Nessim, S. (1993). Impact of family relocation on children's growth, development, school function, and behavior. *Journal of the American Medical Association, 270*(11), 1334-1338.

Worrell, F.C. (1997). Predicting successful or non-successful at-risk status using demographic risk factors. *High School Journal, 81*(1), 46-53.

Young Offender Act. (1985). Revised Statues Canada, c. Y-1. In E.L. Greenspan & M. Rosenberg (1998). *Martin's Annual Criminal Code* (pp. 1-104). Aurora, ON: Canadian Law Book Inc.

Zabel, R.H., & Zabel, M.K. (1996). *Classroom management in context: Orchestrating positive learning environments.* Toronto, ON: Houghton Mifflin Company.

Ziesemer, C., Marcoux, L., & Marwell, B.E. (1994). Homeless children: Are they different from other low-income children? *Social Work, 39*(6), 658-668.

Zill, N. (1995). *Adolescent time use, risky behaviors and outcomes* (Study commissioned by the U.S. Department of Health and Human Services). Washington, DC: Public Health Service.

Zima, B.T., Wells, K.B., & Freeman, H.E. (1994). Sheltered homeless children in Los Angeles County. *American Journal of Public Health, 84*(2), 206-264.

Zimiles, H., & Lee, V.E. (1991). Adolescent family structure and educational progress. *Developmental Psychology, 27*(2), 314-320.

Zoccolillo, M. (1992). Co-occurrence of conduct disorder and its adult outcomes with depressive and anxiety disorders: A review. *Journal of the American Academy of Child and Adolescent Psychiatry, 31*(3), 547-556.

Zuker, M.A. (1997). *Legislation, definitions and provincial policies.* Paper presented at the Ontario Institute for Studies in Education for the Principals' Course, Toronto, ON.

APPENDIX A:

Factors Affecting Early School Leaving

FACTORS AFFECTING EARLY SCHOOL LEAVING

Family Background and Demographic Characteristics	Personal-Related	School-Related Characteristics
*low socioeconomic background	*behavioural problems	*dislike of school
*persistent or occasional poverty	*emotional problems	*negative attitude toward school
*low IQ and ability level	*antisocial personality disorder	*poor school attendance
*minority ethnic background	*early-onset conduct disorder	*school discipline problems
*non-English speaking families	*social immaturity	*school suspensions
*immigrant status	*confrontation with authority figures	*school expulsions
*neighbourhood and community characteristics	*involvement with police	*below grade level for age
*lone-parent status	*involvement with the youth justice system	*feeling of school alienation
*male gender	*incarceration	*large class size
*large families	*low self-esteem	*school boredom
*several natural or step-siblings	*normlessness	*low academic achievement
*other sibling dropouts	*influenced by negative peer pressure	*grade failure
*early autonomy	* association with dropout friends	*difficulties in learning
*early pregnancy	*association with deviant friends	*consignment to a nonacademic stream
*high residential mobility	*over work	*increased academic standards
*high school mobility	*favourable labour force opportunities	*negative student-teacher rapport
*being homeless	*low level of extracurricular participation	*high teacher turnover
*low parental educational attainment		*inadequate teacher education-inservice

*low parental educational involvement *parental unemployment *low parental job status *permissive parenting style *low educational expectations *parental criminality *parental substance abuse		